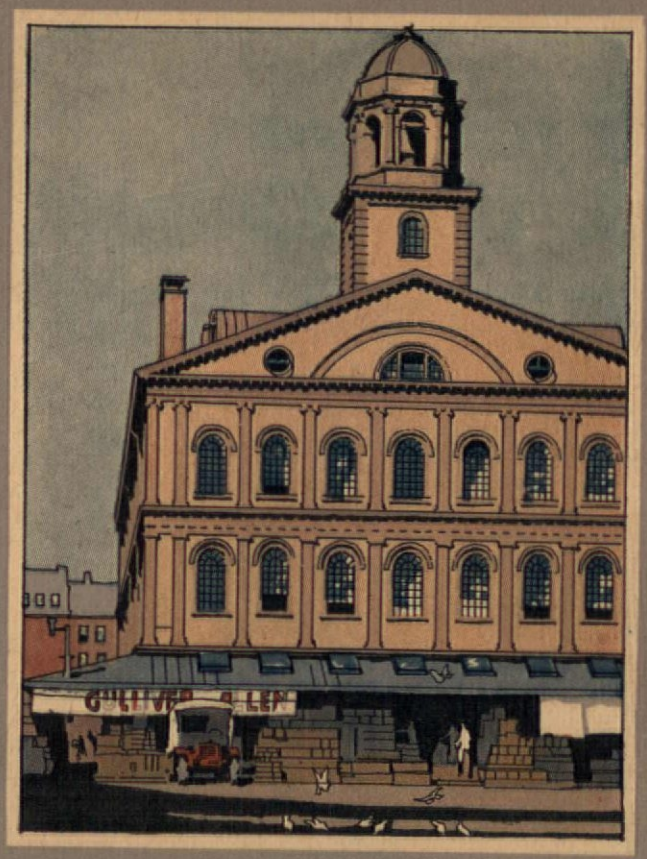
THE ARCHITECTURAL FORUM

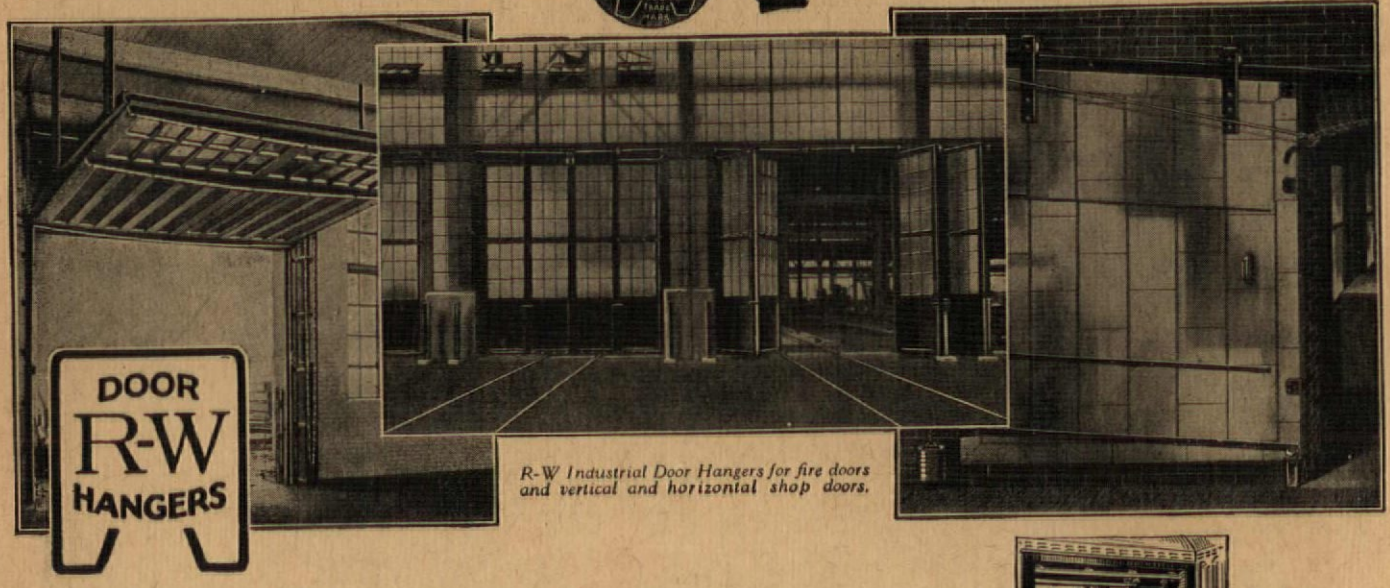


JUNE 1924

SHOP AND STORE REFERENCE NUMBER

PRICE $2

QVALITY LEAVES ITS IMPRINT



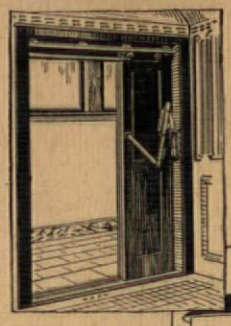
R-W Industrial Door Hangers for fire doors and vertical and horizontal shop doors.

A Hanger for Every Door that Slides!

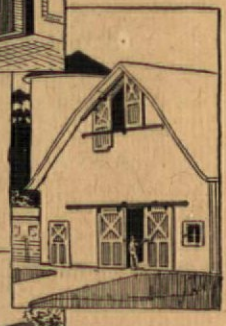
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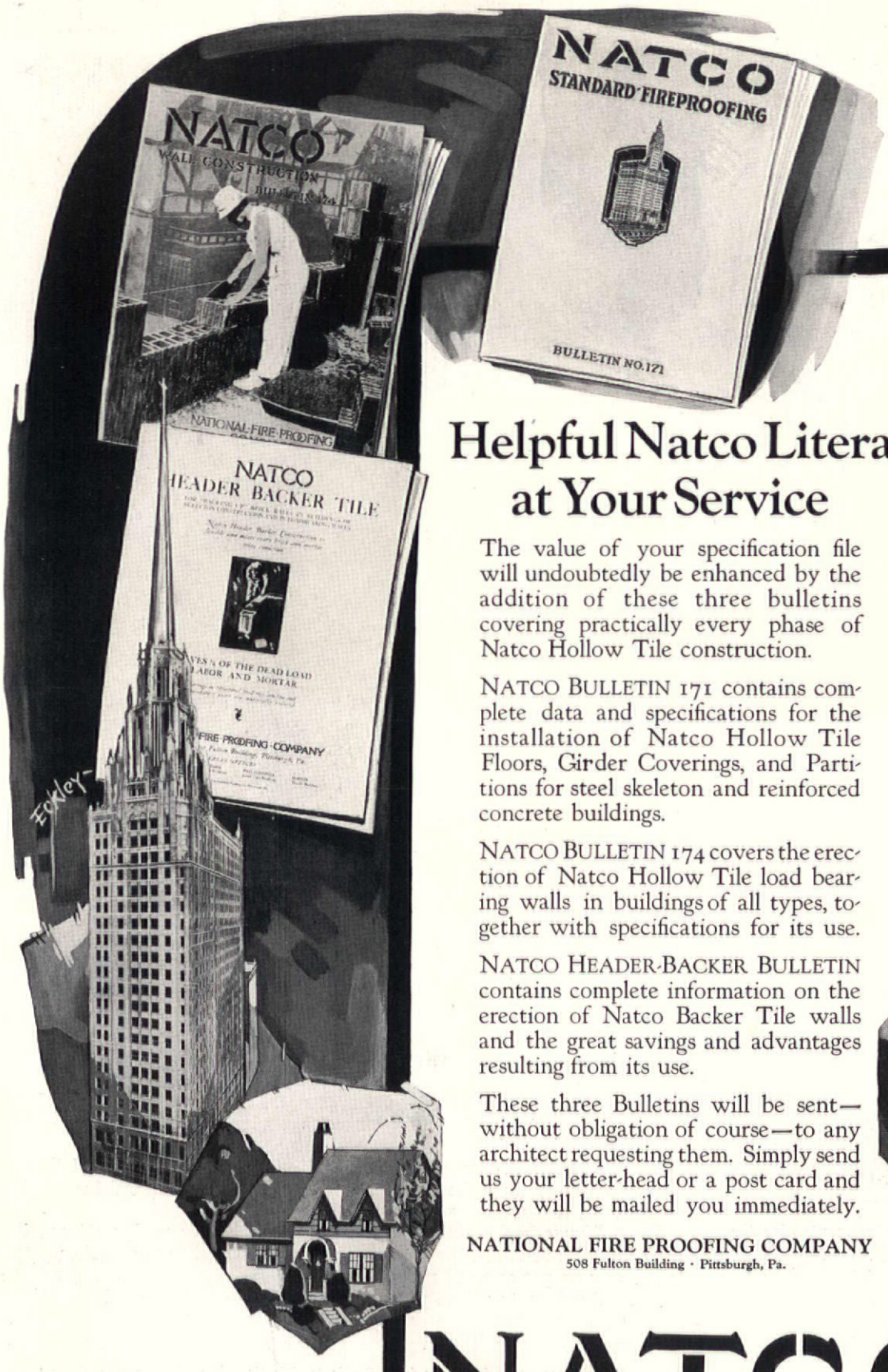
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The value of your specification file will undoubtedly be enhanced by the addition of these three bulletins covering practically every phase of Natco Hollow Tile construction.

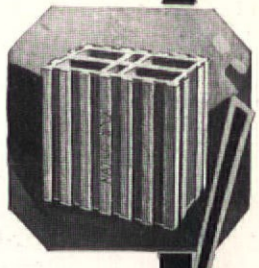
NATCO BULLETIN 171 contains complete data and specifications for the installation of Natco Hollow Tile Floors, Girder Coverings, and Partitions for steel skeleton and reinforced concrete buildings.

NATCO BULLETIN 174 covers the erection of Natco Hollow Tile load bearing walls in buildings of all types, together with specifications for its use.

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Volume XL THE ARCHITECTURAL FORUM Number 6
Published Monthly by Rogers and Manson Company, 383 Madison Avenue, New York, N. Y. Yearly Subscription: U. S. A., Insular Possessions and Cuba, $6. Canada, $6.75. Foreign Countries in the Postal Union, $7.50. Single copies, 60 cents. Entered as Second Class Matter at the Post Office, New York, N. Y., under the Act of March 3, 1879.



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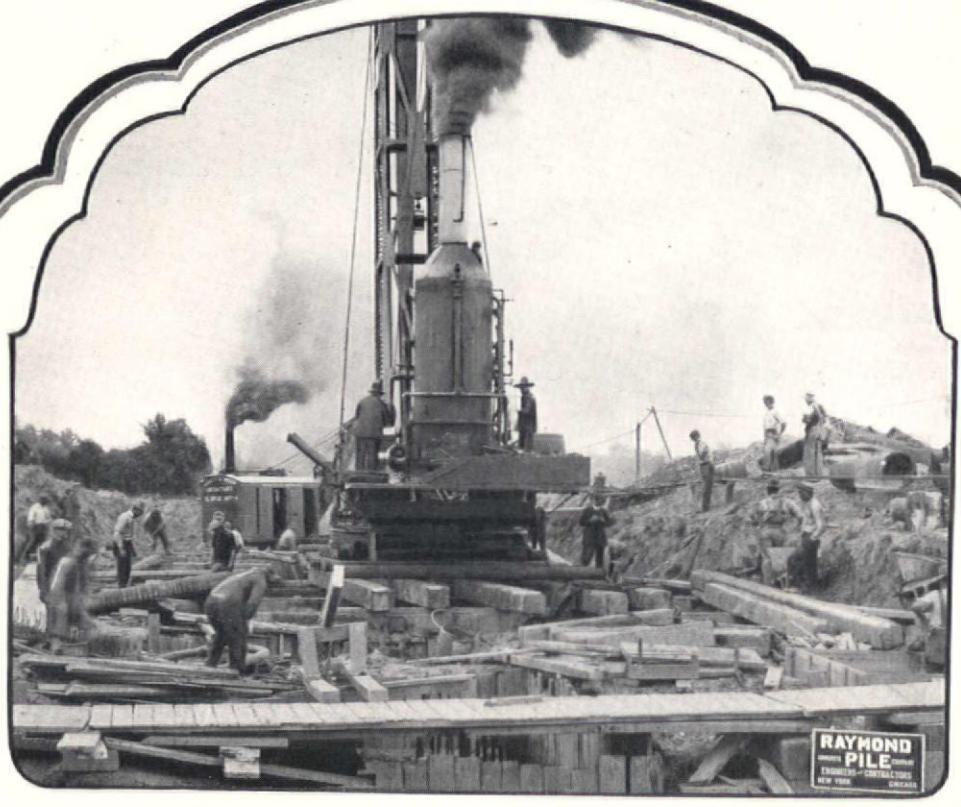
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SHELTON CLUB HOTEL
ARTHUR LOOMIS HARMON
Architect

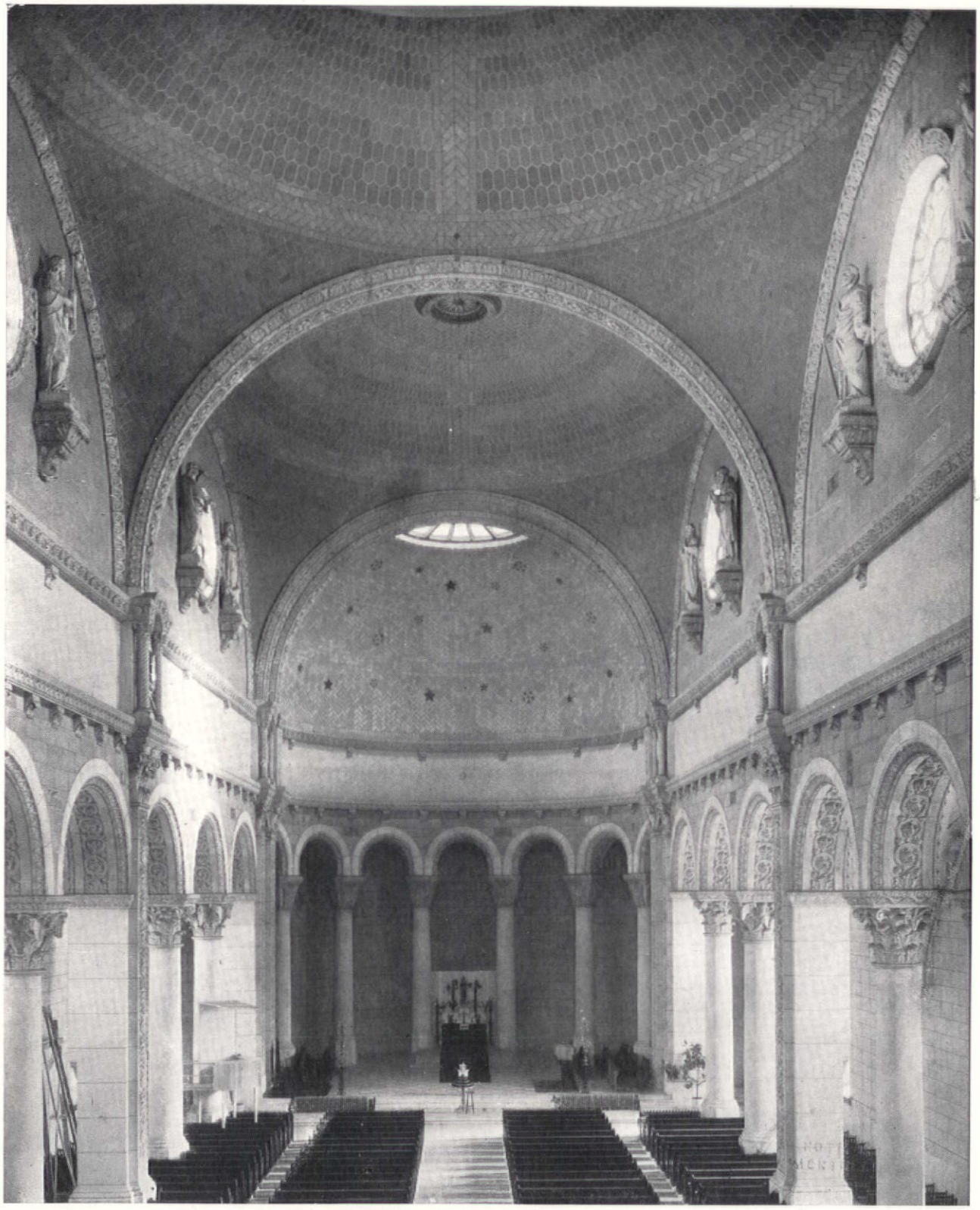
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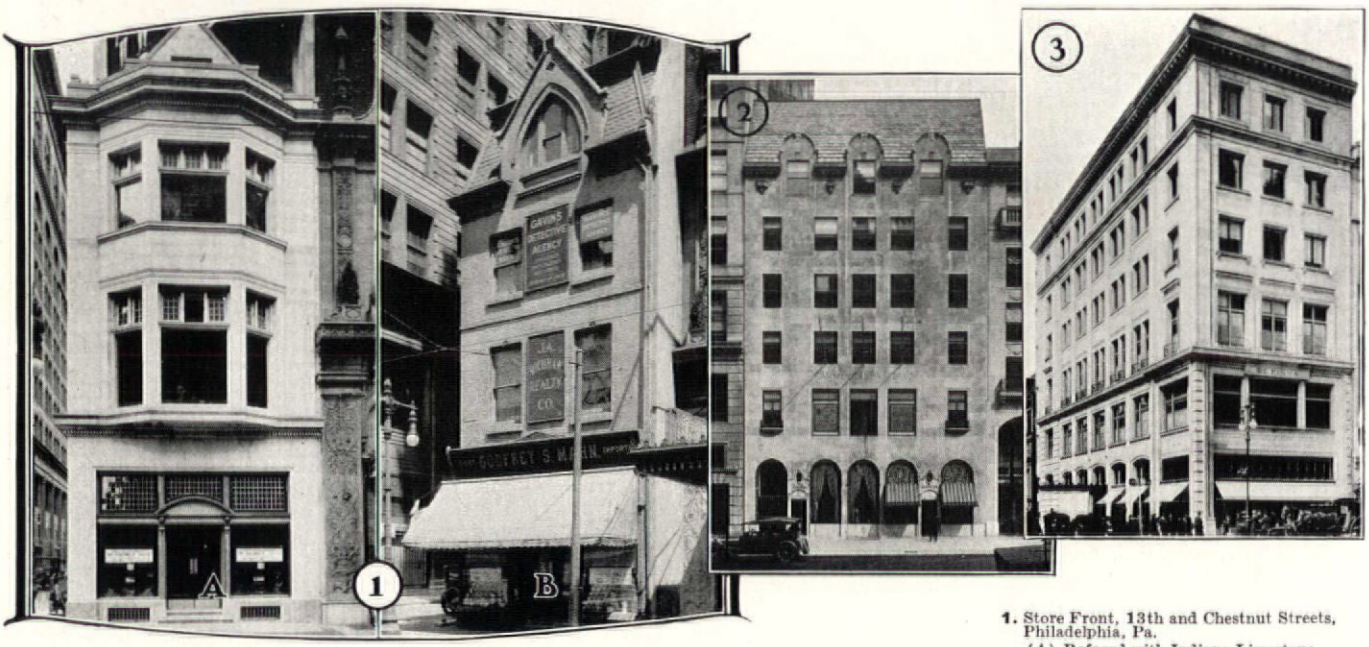
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The ease and effectiveness with which an old building can be modernized by a facing of Indiana Limestone is daily becoming more and more apparent. And the fact that a new or remodelled shop-front or building, if constructed of Indiana Limestone, will last and be beautiful for generations without cost for upkeep, is the chief cause of the ever-increasing popularity of this natural building stone among architects and owners.

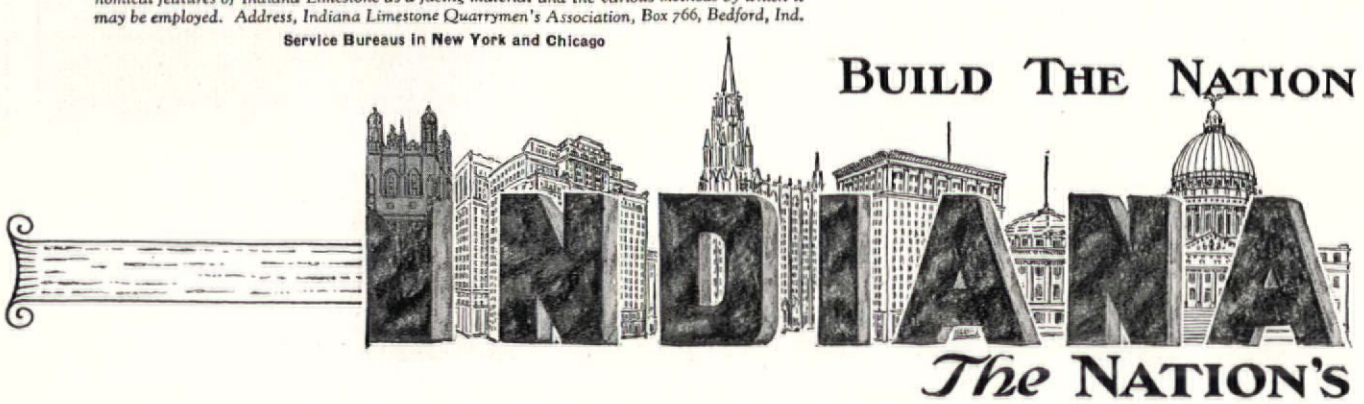
1. Store Front, 13th and Chestnut Streets, Philadelphia, Pa.
   (A) Refaced with Indiana Limestone, Carl A. Ziegler, Architect.
   (B) Before remodelling.
2. Cammeyer Building, New York City, Rouse & Goldstone, Architects.
3. De Pinna Building, New York City, Henry Otis Chapman, Architect.
4. Dewey Building, Washington, D. C. George N. Ray, Architect.
5. Tappe Building, New York City, Kenneth M. Murchison, Architect.
6. Revillon Frères, New York City, Henry Otis Chapman, Architect.
7. Ford Building, Washington, D. C. Albert Kahn, Architect.
8. Carpenter Building, Washington, D. C. George N. Ray, Architect.
9. Jay-Thorpe Building, New York City, Buchman & Kahn, Architects.
10. Rehrig Building, Scranton, Pa. Davis & Lewis, Architects.
11. Wm. J. Convery & Sons Building, Trenton, N. J., J. Osborne Hunt, Architect.
12. Thibaut Building, New York City, Trowbridge & Livingston, Architects.
13. Niedt-Ertel Motor Garage, Trenton, N. J. J. Osborne Hunt, Architect.
14. Burroughs Building, Washington, D. C. George N. Ray, Architect.



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Problem of Superior Shop-Fronts



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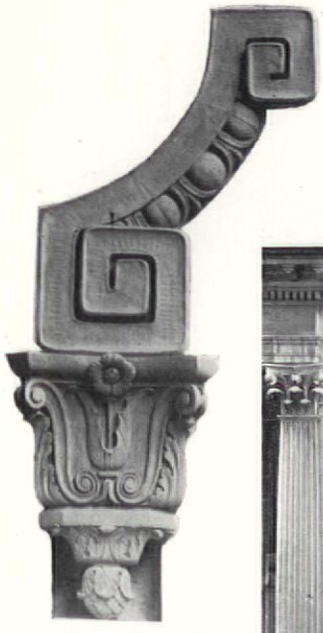
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CLOISTER BRICK are shale. They are side cut. They are impervious. They are without glaze —and they are inexpensive.

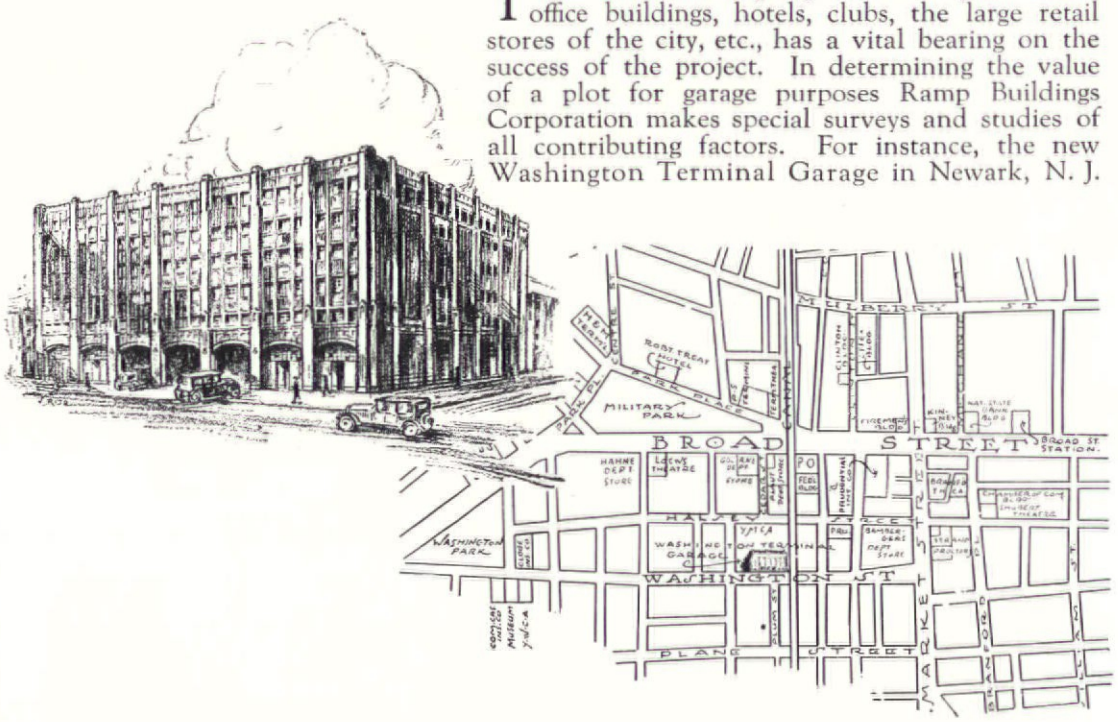
You will want our booklet "The Cloister Brick." Write Dept. 18

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Detail of upper stories, Winnipeg Electric Railway Chambers, Winnipeg, Canada; Charles S. Frost, Architect.

The entire facing above second story, on two street fronts of this ten-story building, is Northwestern unglazed mottled terra cotta in light and dark shades set in alternate courses.

This is an excellent illustration of the saving that can be effected by duplicating ornamental features in terra cotta.

NORTHWESTERN is a short form of specification for architectural Terra Cotta of superior quality.

THE NORTHWESTERN TERRA COTTA COMPANY

CHICAGO



Upper stories of Matson Building, San Francisco, California. Bliss & Faville, Architects. Entirely finished in warm gray matt glazed Terra Cotta with background of ornamental features in blue green.

SATISFACTION IN USE

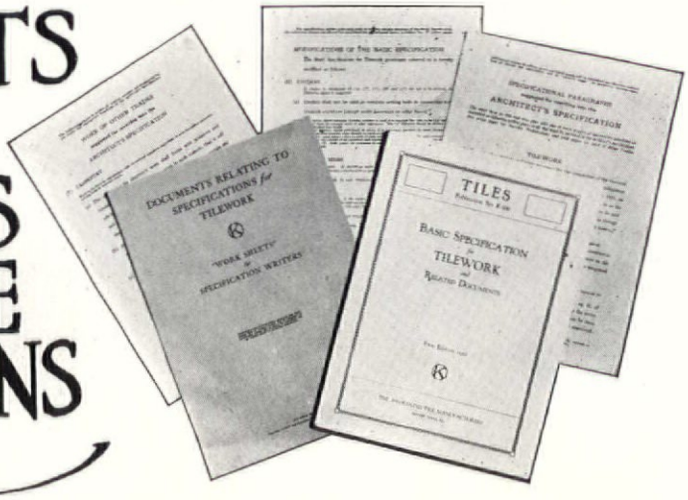
Employment of Terra Cotta in this recent example of San Francisco architecture testifies to years of satisfactory experience in its use for important California buildings.

NOTE: From the Standard Specifications of this Society prepared with the assistance of the National Bureau of Standards and Structural Service Committee, A. I. A., you can specify polychrome Terra Cotta economically and with every assurance of its lasting durability. For copies address:

NATIONAL TERRA COTTA SOCIETY

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WORK SHEETS for ARCHITECT'S TILE SPECIFICATIONS



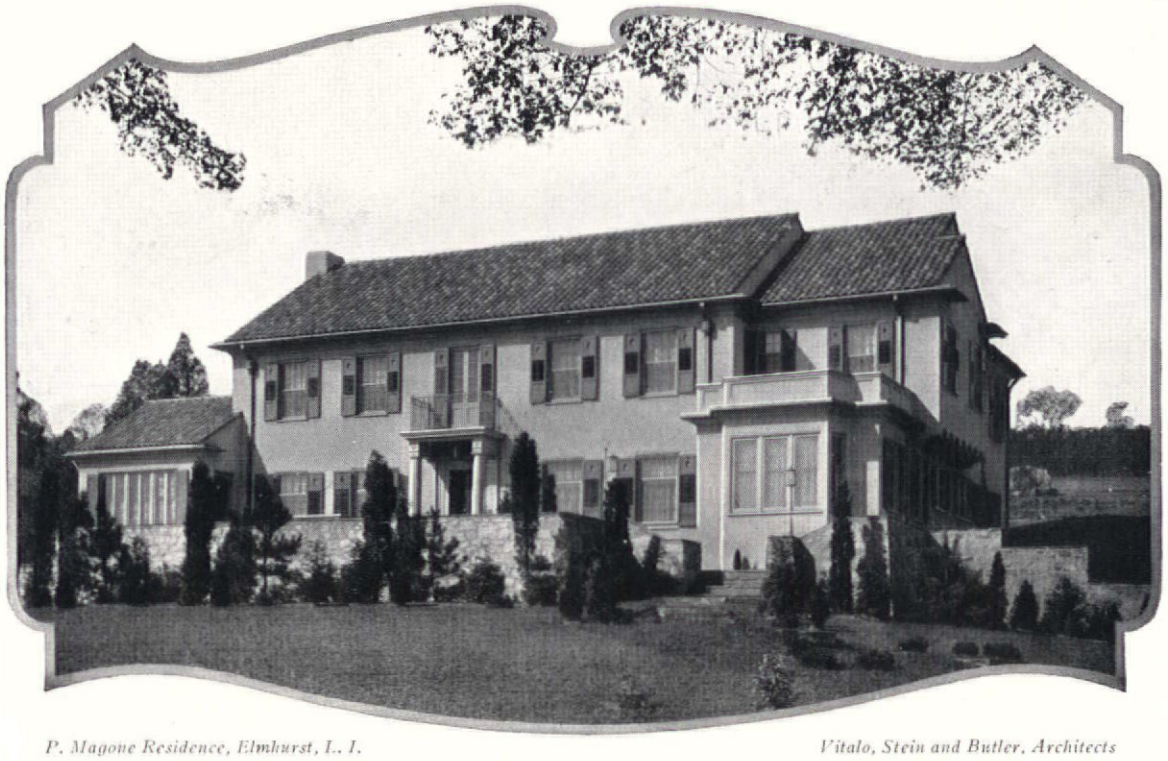
THESE WORK SHEETS—prepared by an architect for architects—boiled down from the 120 paragraphs of the Basic Specification into 8 paragraphs on yellow scratch paper—were designed to make specification writing easier. A blue pencil eliminates the portions not applicable to the particular building for which each specification is separately prepared.

Into 12 paragraphs on green scratch paper have been condensed all items in the Basic Specification which are subject to choice, as for instance if cinder concrete shall not be used. Here again a blue pencil makes the selection by elimination.

Not only as a reminder but also as a distinct help in securing proper preparatory work by other trades and assuring successful tile installations, the paragraphs on pink scratch paper require but similar eliminations according to the type of construction involved.

The Basic Specification for Tilework is not a document intended to be copied. It is distinctly a reference document. It was prepared by our consulting architect in cooperation with other architects thru out the country and by others qualified to contribute and enhance its value.

ASSOCIATED TILE MANUFACTURERS
BEAVER FALLS · PENNSYLVANIA



P. Magone Residence, Elmhurst, L. I. *Vitalo, Stein and Butler, Architects*

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IMPERIAL

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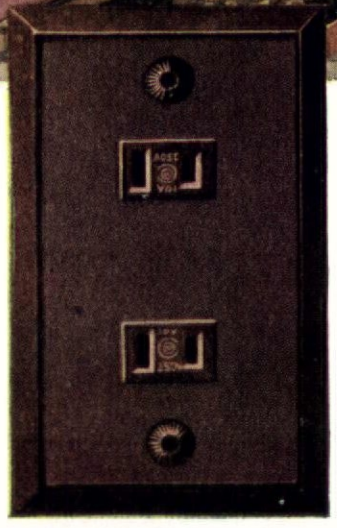




No. 6276
Toggle Switch
with No. 7121
Bakelite Plate



No. A-1
Attachment
Plug



No. 990
Duplex
Unit
Receptacle

Where Good Taste Predominates

HOW often the question has been presented, as to some means of eliminating the brass plates, used in connection with electric switches, receptacles, etc. These plates soon become discolored, and make a distasteful appearance, and reflect an impression of cheapness on the rest of the surroundings.

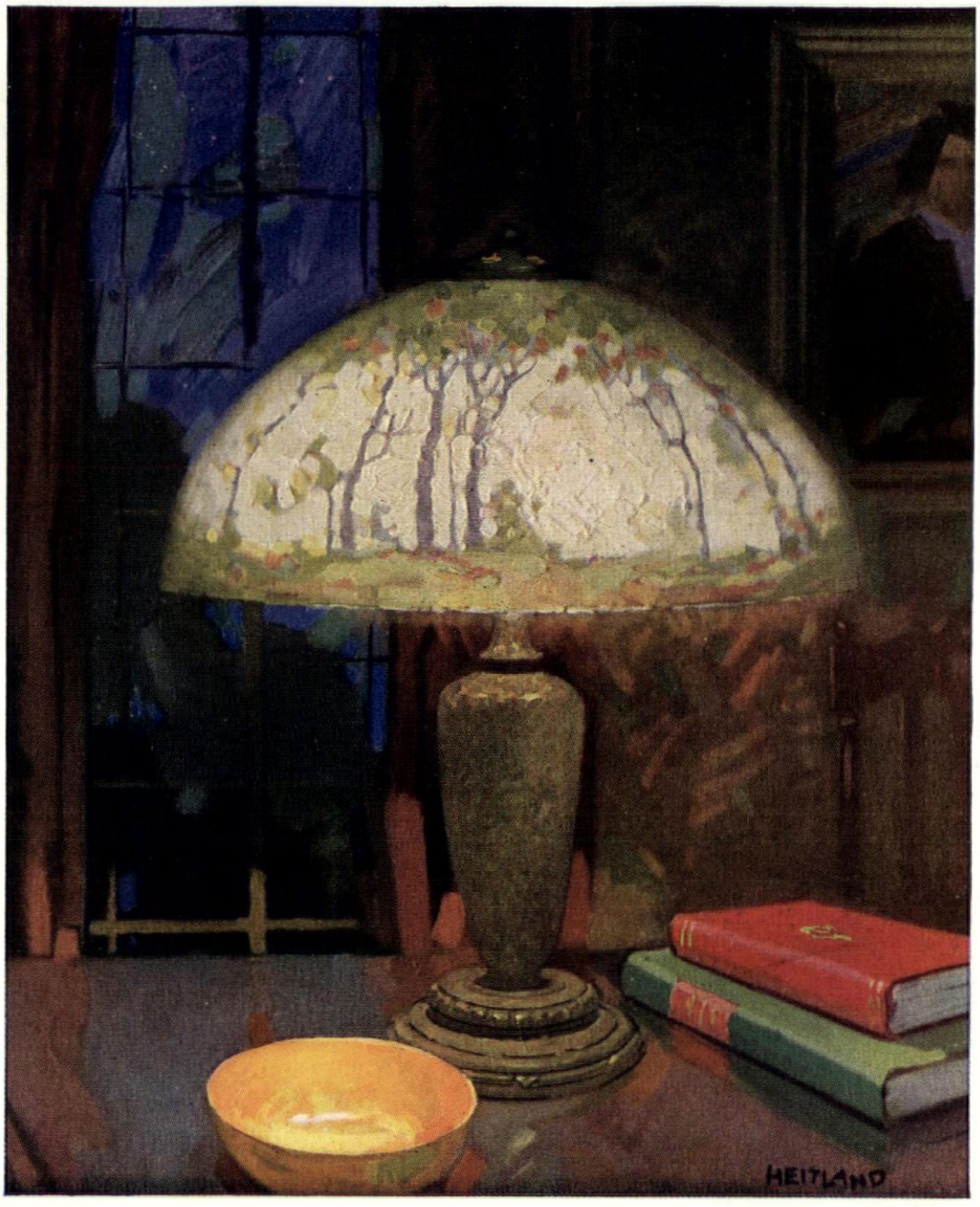
Architects, builders and contractors have been up against this problem, because they're not in keeping with the modern decorations of the average home.

Conveniently located outlets, as shown in this illustration, are very essential in lighting effects. What a striking contrast between the cheap wavy brass plates, with their shining and glaring effect, as compared with the soft, delicately colored fittings of Connecticut quality, pictured above.

Connecticut devices are ornaments in the most conspicuous places, because of the beautiful rich brown egg-shell finished plates, made of genuine "Bakelite," which never tarnishes or requires re-finishing. Besides, there are no metal parts exposed, which eliminates the possibility of shock in the course of operation, from defective wiring, grounds, etc. "ANOTHER CONNECTICUT IMPROVEMENT."

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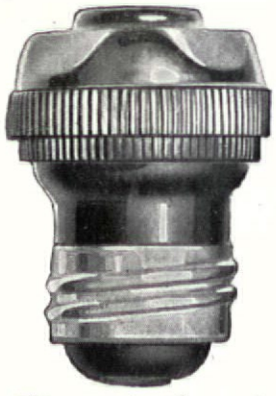
CONNECTICUT "A-1" DEVICES



A CERTAIN beauty of form and exquisite blend of coloring cause one instinctively to associate a Handel Lamp with the fine paintings and beautitul rugs of a perfectly appointed home. And a Handel Lamp is just as lasting also; it also is designed to be permanent—different from the fragile lamp that so soon fades and is so easily broken.

Handel Lamps are now using Connecticut plugs made of genuine Bakelite.

The lamp shown is No. 6868.



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HANDEL *Lamps*

THE HANDEL COMPANY, MERIDEN, CONNECTICUT

FISKE

The "Sterling" of Face Brick



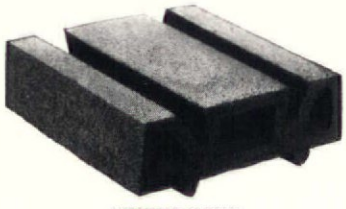
"TAPESTRY"



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A Tribute to a Builder

OCCASIONALLY, there arises in every community a man with the courage of his convictions; a man, destined to be a leader, unafraid, and able to grasp the opportunities which come to him and combine them for the betterment of mankind.

Such a man was Niels Esperson. Born among modest environments, he arose to an enviable position in the business world by daily living up to his highest ideals.

Among his many commercial activities was the founding and organization of the Mid-Continent Clay Company; and, while his death prevented his continued management of this company, the value of its products has been recognized throughout the nation and is a lasting tribute to its founder.

Mrs. Esperson, the present owner, realizing this, has selected the company now known as the Mid-Continent Clay Company as best suited to bear his name,—therefore, the

MID-CONTINENT CLAY COMPANY

Shall hereafter be known as

NIELS ESPERSON TILE COMPANY

Though fully realizing the difficulties which attend changing the name of an established business, this announcement is made with entire confidence that the company's clientele will appreciate the spirit which prompts the change.



New
Trade Mark

A more appropriate name to the honor of its founder.

A company whose every business dealing will honor the name.

NIELS ESPERSON TILE CO.

Former name Mid-Continent Clay Co.

Plant and Sales Office
Peru, Kansas

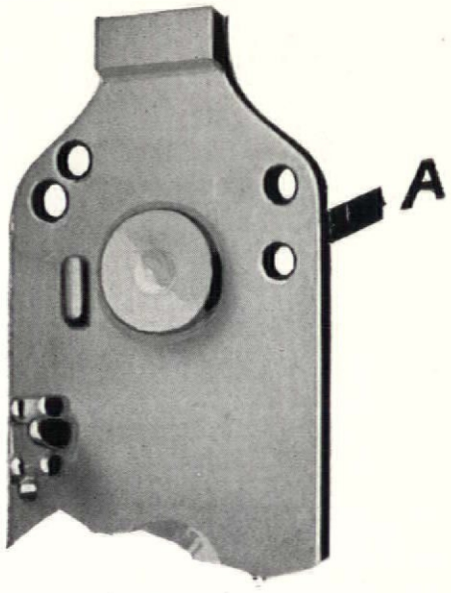
Main Office
Houston, Texas

Branch Office
Atlanta, Georgia

Von Duprin

TRADE MARK REG. U.S. PATENT OFFICE

Self-Releasing Fire Exit Latches



See Page 28
In the New Catalog

For Correct Application

A frequent source of trouble in the older types of panic bolts was the incorrect application of the devices, interfering with the quick and complete withdrawal of the latch bolt.

In the new model **Von Duprin** latches, this trouble is entirely eliminated by the template on the back of the mechanism case cap ("A" in the illustration).

This template insures the correct position of the cap and, as a consequence, the correct operation of the mechanism and the latch bolts.

Every detail of the new model **Von Duprin** latches is designed with the idea of correct application, easy operation, and long life.

This is the first of a series of announcements showing recent improvements in **Von Duprin** *devices.*



Von Duprin Self-Releasing Fire Exit Latches are approved by the National Board of Fire Underwriters, as well as by numerous other approval bodies.

VONNEGUT HARDWARE CO.

Indianapolis, Indiana.

Manufacturers

***Von Duprin** devices are made better than is necessary for everyday service: they are made to work perfectly under emergency demands—to save lives!*



SARGENT
HARDWARE

CORONADO HOTEL
St. Louis, Mo.

Preston J. Bradshaw
Architect

The hardware requirements of a modern hotel, where consideration must be given to the security of the guests, the convenience of those who serve, and the protection of the management, are fully met by

SARGENT
Locks & Hardware

On the east coast and in the west as well as in other parts of the country, there are many well-known hotels in which these goods are giving satisfactory service.

SARGENT & COMPANY

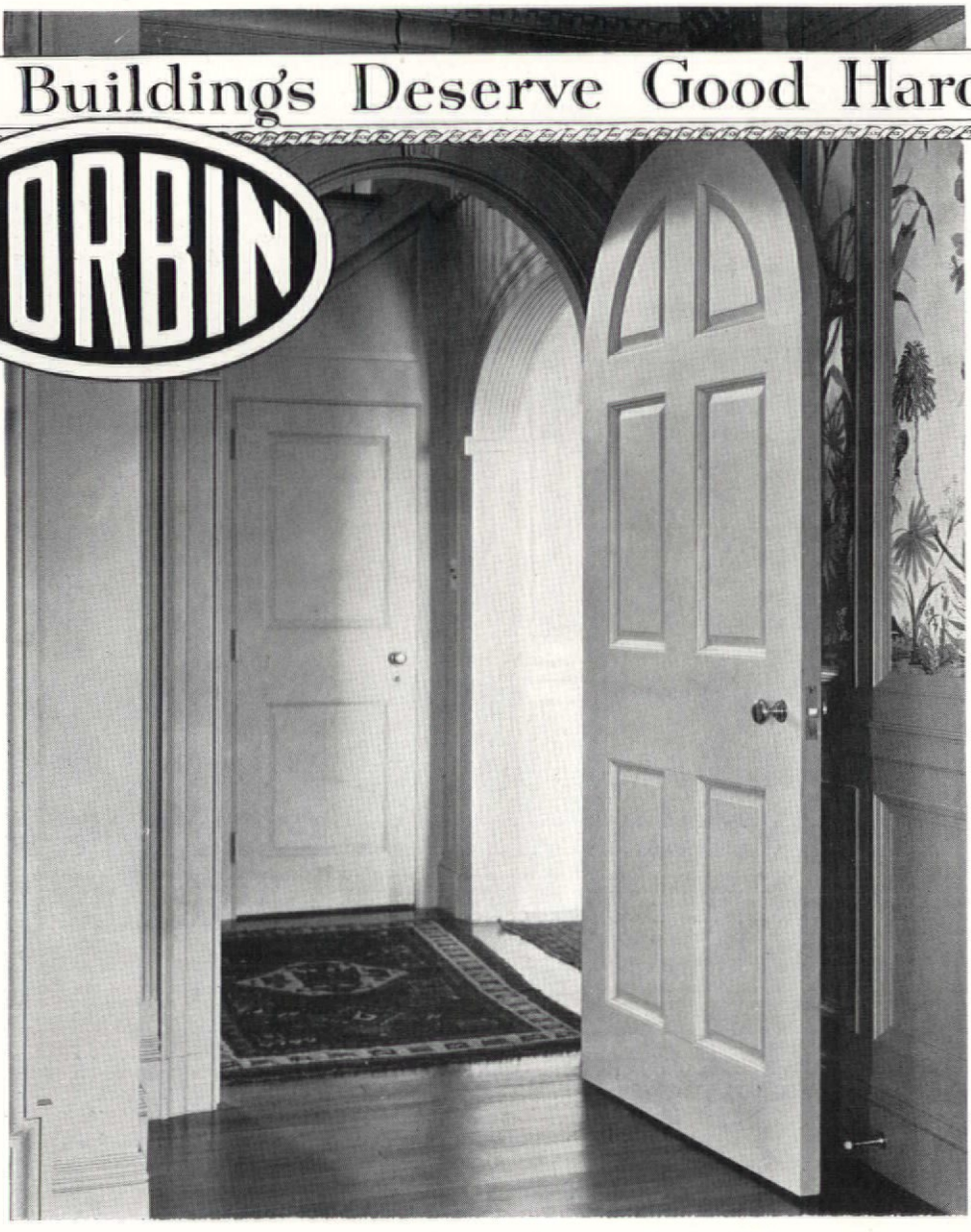
NEW HAVEN, CONN.

New York, 94 Centre Street Chicago, 221 W. Randolph Street

"Details to which Standard Hardware can be applied" are printed in our catalogue. We have additional copies of these pages, bound with a cover, that we shall be pleased to send to Architects and Architectural Draftsmen upon request.

Good Buildings Deserve Good Hardware

CORBIN



When the client "can't afford" Good Hardware

IF you have to "cut the corners" for a client, don't make the mistake of skimping on the hardware—it never pays. And you don't need to, anyway. Here are two things you can do to hold down the cost and still provide good hardware and your client's lifelong satisfaction in it:

1. How many inside doors really need locks with keys? Those to a closet or two, and the bathrooms. But why put unnecessary locks on the other dozen or fifteen doors, when a knob and latch is sufficient? Here is a saving.

2. If the doors are to be painted, a second big saving can be realized by using Corbin cast iron butts or hinges on *interior* doors. They last almost forever, lubricate themselves, and are entirely satisfactory if kept painted. Of course, if the client can afford it, you will want to recommend cast brass or bronze butts throughout the house. But whatever the choice, specify three to a door, and the doors will always swing and close as they should.

Good Hardware speaks the language of quality—and acts it, as long as a building stands. Every architect can subscribe to the sound truth in these words: "Good buildings deserve good hardware." May your experience prove that such hardware is Corbin.

We have an interesting pamphlet on Cast Iron Butts which we will be pleased to send, on inquiry.

P. & F. CORBIN SINCE 1849 NEW BRITAIN CONNECTICUT

The American Hardware Corporation, Successor

NEW YORK CHICAGO PHILADELPHIA

CARNEY
for Brick and Tile Mortar

Is A Cement Perfected And Proved By Forty Years Of Experience

Carney Has These Exclusive Merits:

IT can be used directly after mixing or left in the box over night. There is no waste to Carney. It lays the maximum number of brick to the barrel. Each barrel contains five sacks (cloth or paper) or 4.75 cubic feet. Four parts sand carrying capacity—nineteen cubic feet of smooth mortar to a barrel of cement. Requires no lime, protecting against adulteration or errors through carelessness. Being more plastic and smoother working, the mason can work faster and easier. No soaking required. Ideal for wall-bearing buildings. It becomes harder than the brick and tile it joins and continues to harden indefinitely. It works perfectly in cold weather. Sets a creamy white, contrasting beautifully with brick or tile. Clients are always satisfied with Carney laid walls. Contractors bid lower because the labor cost of mixing and bricklaying is reduced and they do better work with Carney. Carney always builds a permanent, substantial structure. The final cost of a Carney wall is always lower.

Carney is the perfected cement for brick and tile mortar.

The Carney Company

Cement Makers Since 1883

Mankato, Minn.

Mills: Mankato, Minn., Carney, Minn.

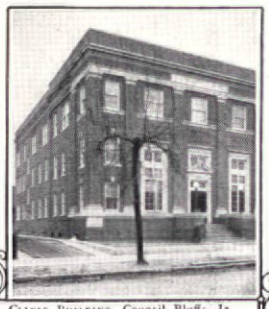
District Sales Offices:

Leader-News Building, Cleveland; Chamber of Commerce Building, Chicago; Omaha National Bank Building, Omaha; Syndicate Trust Building, St. Louis; Book Building, Detroit; Builders' Exchange, Minneapolis.

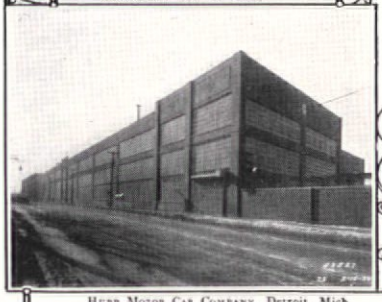
Specifications: 1 part Carney to 4 parts sand.



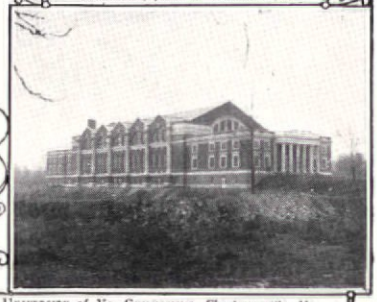
ALCAZAR HOTEL, Cleveland, Ohio
Architect, H. T. Jeffery
Contractor, Geo. W. Hale



CLINIC BUILDING, Council Bluffs, Ia.
Architects, Anderson & Spooner
Contractor, John E. Wakefield Co.



HUPP MOTOR CAR COMPANY, Detroit, Mich.
Private Plans
Contractor, Everett Winters Co.



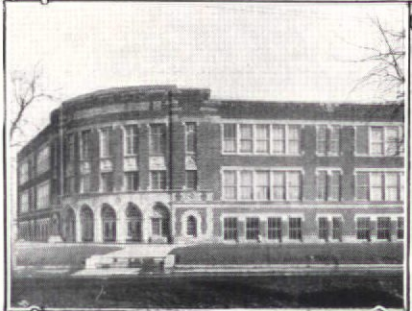
UNIVERSITY of VA. GYMNASIUM, Charlottesville, Va.
Architect, Fiske Kimball
Contractor, King Lumber Co.



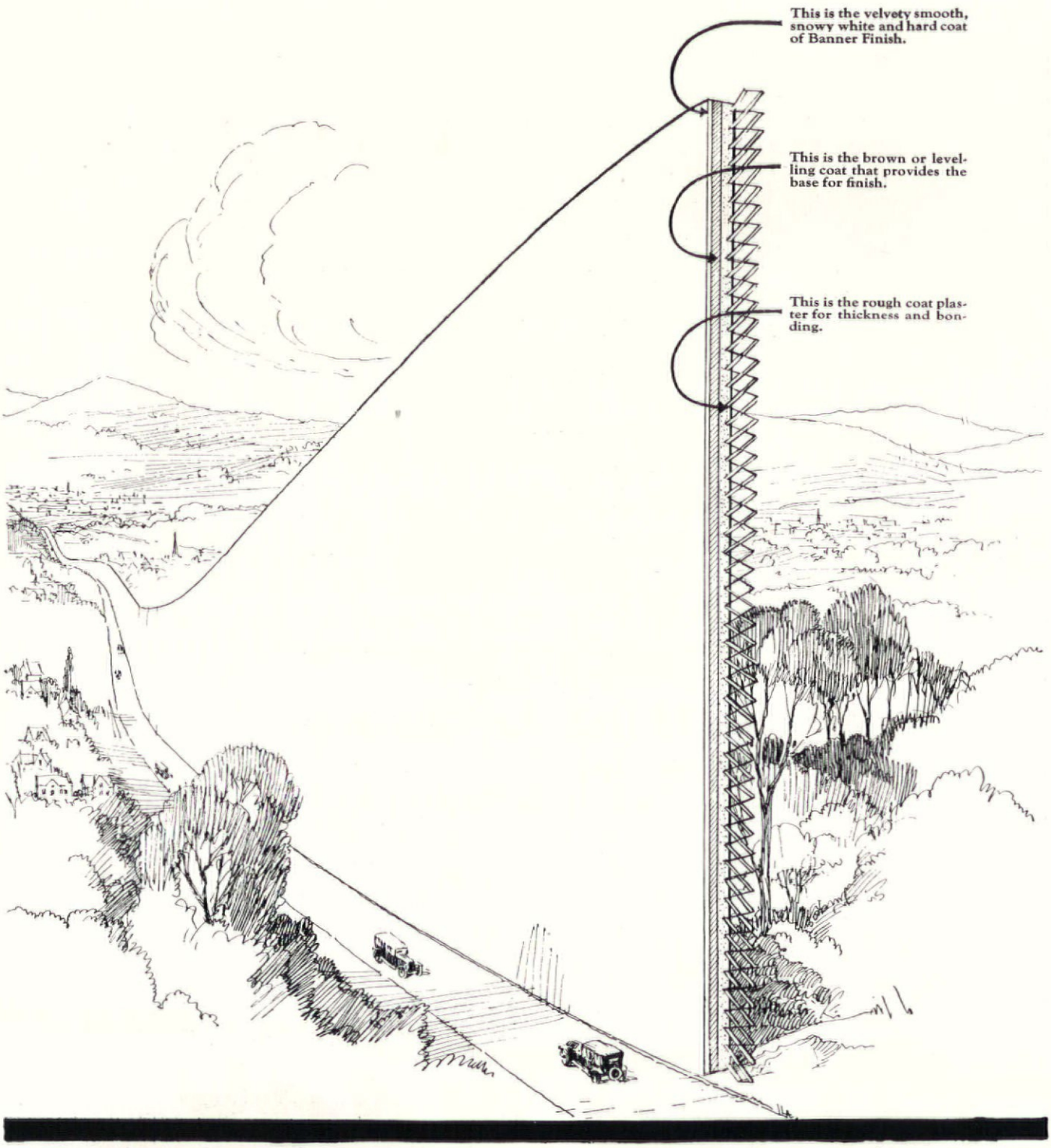
NORTH JUNIOR HIGH SCHOOL, Sioux City, Ia.
Architects, Beuttler & Arnold
Contractors, Riesche & Sanborn



TOWER BUILDING, Chicago, Ill.
Architects, Holabird & Roche
Contractor, Krahl Construction Co.



JOSEPH G. CANNON SCHOOL BLDG., Danville, Ill.
Architects, Lewis & Dougherty
Contractor, Clark Construction Co.



Banner Finish is made at Gibsonburg, Ohio---in the heart of the world's finest limestone deposit.

If a plaster wall were 20 miles long---

Yes, even if it were twice as long---you wouldn't find a single seam in its entire length.

Because plaster---lime plaster---is a natural product that readily covers surfaces of all sizes and shapes with a monolithic, firesafe and durable coat.

And when Banner Lime is used for the finish it spreads more easily, more smoothly and more quickly because Banner is scientifically produced under the most modern processes at the world's largest single plant devoted exclusively to the manufacture of one brand, packed and shipped under one label.

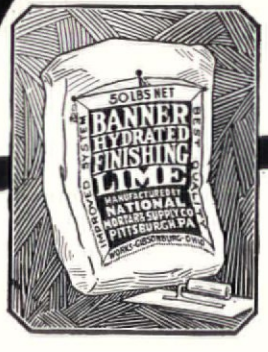
Be sure it's Banner and you'll know it's right.

National Mortar & Supply Company

Federal Reserve Building

Pittsburgh, Pa.

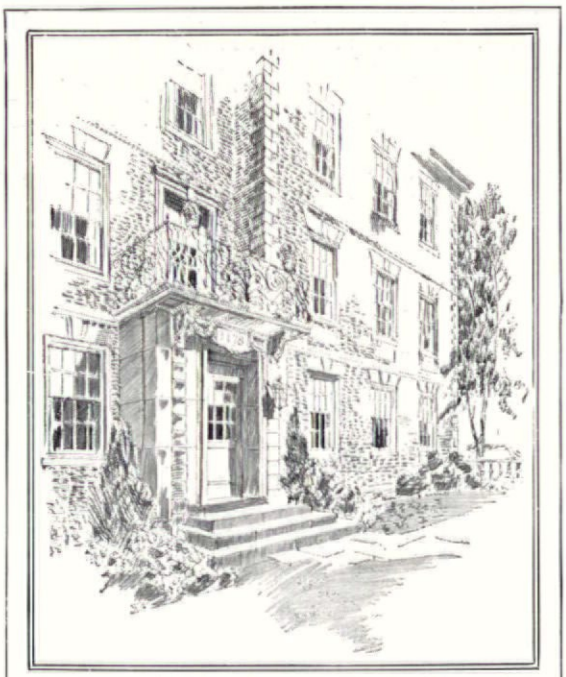
Banner



Easy to spread--
hard to beat"

For Better Masonry

BRIXMENT



An entrance to the Latham Apartments, Columbus, Ohio, in which are combined architectural charm and living comfort. Brick work in Flemish bond. BRIXMENT for mortar. Miller & Reeves, Architects; E. H. Latham Co., Builders, Columbus, Ohio.

Columbus has long since discovered the merits of BRIXMENT

AND in this respect Columbus is typical of many of our more important cities in which BRIXMENT has been used for mortar in structures of exacting requirements—architecturally and structurally.

Adding to the growing list of representative "BRIXMENT jobs", the builders of the Latham Apartments, Columbus' new, distinctive community of apartment homes, have chosen BRIXMENT for its unquestioned integrity of construction, its economy and its ready adaptability to the desired tone and texture of the bond.

A descriptive self-filing handbook on BRIXMENT will be gladly sent you on request.

LOUISVILLE CEMENT CO., *Incorporated,* LOUISVILLE, KY.

Characteristic Wall Tones
through the medium of brick

THROUGH the medium of matte texture Acme Brick of soft ivory hues, the walls of the Municipal Auditorium of Amarillo, Texas, reflect the beauty characteristic of Spanish Mission architecture—with the added advantage of a weatherproof exterior rendered in a delicate and refreshing color-tone of burnt clay.

Equally pleasing effects regularly are being accomplished by eminent architects with Acme weatherproof face brick in the construction of buildings of various types.

Our facilities permit us to assume the responsibility of furnishing face brick of every color, character and texture, for the construction of buildings from the smallest cottage to the largest skyscraper.

Plants:

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Denton, Texas
Fort Smith, Arkansas
Perla, Arkansas

General Offices, Fort Worth, Texas

Acme Brick Company

Manufacturers

Offices Throughout the South

Offices and Display Rooms:

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Beaumont, Texas
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Fort Smith, Arkansas
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Houston, Texas
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Memphis, Tennessee
New Orleans, Louisiana
Oklahoma City, Oklahoma
Port Arthur, Texas
Shreveport, Louisiana
San Antonio, Texas
Tulsa, Oklahoma
Waco, Texas
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Make Our Display Rooms Your Workshop for Solving Color Schemes.



Smith & Townes and Lang & Witchell, Associated Architects
V. E. Ware, Builder

ACME BRICK

Annual Capacity Over 75 Million Face Brick



Concrete *and* Progress

Not only in the shifting skylines of New York and San Francisco, but throughout all this broad land of ours, we see in the making a new and greater American Architecture.

In the development and steady advancement of modern architecture, concrete is naturally playing a conspicuous part.

Concrete meets the economic and structural requirements of the twentieth century, and its wide range of adaptability in form and color gives the architect and the sculptor practically unlimited opportunity to express their ideals of beauty.

The booklets, shown above, contain a wealth of practical information on concrete. The list is as follows: "Concrete Data for Architects and Engineers," "Portland Cement Stucco," "A Manual of Concrete Masonry Construction," "Concrete School Houses," "Concrete Hotel, Apartment and Office Buildings," "Mercantile and Industrial Buildings of Concrete."

Let the nearest office listed below know which booklets you want. They will be sent without obligation

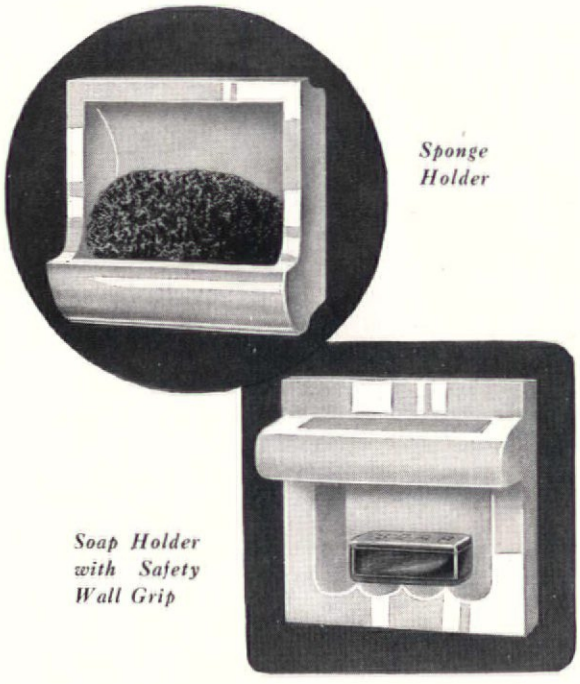
PORTLAND CEMENT ASSOCIATION

A National Organization
to Improve and Extend the Uses of Concrete

Atlanta	Dallas	Indianapolis	Milwaukee	Parkersburg	San Francisco
Birmingham	Denver	Jacksonville	Minneapolis	Philadelphia	Seattle
Boston	Des Moines	Kansas City	New Orleans	Pittsburgh	St. Louis
Charlotte, N.C.	Detroit	Los Angeles	New York	Portland, Oreg.	Vancouver, B. C.
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ONE HUNDRED YEARS 1824 1924 OF PORTLAND CEMENT

Our Booklets are sent free only in the United States, Canada and Cuba



Sponge Holder

Soap Holder with Safety Wall Grip

Bathroom accessories *that are permanent*

WE are the originators of built-in china bathroom accessories. From the very start, we have made it a point of honor to produce fixtures as good as can be made.

Through our advertising, Fairfacts Fixtures are generally known and accepted. Our business has had a remarkable growth. We feel that no house is really modern without these China fixtures. They have stood the test of time and are unquestionably superior to fixtures of metal or enamel.

If you are convinced of the merit of Fairfacts Fixtures and if your clients also desire them, they should be designated by name in the specifications and not merely called built-in fixtures. The yellow and red Fairfacts label pasted on each fixture is your protection. If you take the precaution of seeing this trademark before it is removed, you may be sure they are genuine Fairfacts Fixtures.

Fairfacts Fixtures meet every bathroom need, soap holders, tumbler holders, shelves, safety wall grips, tooth paste and brush holders, paper holders, towel bars, electric radiators and a wide variety of combinations.

Fairfacts Fixtures are installed by tile contractors—the only trade that does this work—and should be included in the tile contract. We do not sell the plumbing trade.

Send for Catalog F. Details and specifications also appear in Sweet's Architectural Catalog.

THE FAIRFACTS COMPANY, INC., *Manufacturers*
Dept. F, 234-236 West 14th Street
New York City

Look for this BATHROOM Fairfacts FIXTURES *trademark*

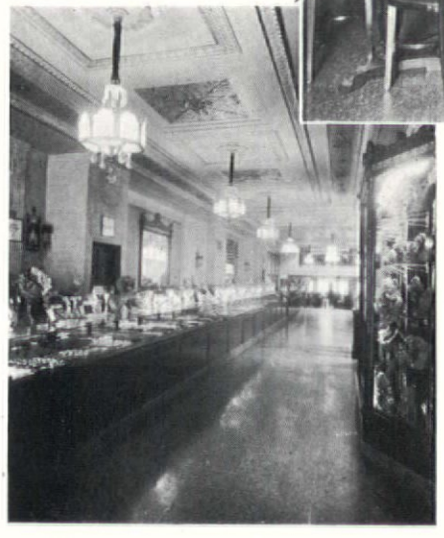
Fairfacts Fixtures

Terrazzo

THE FLOORING OF CENTURIES



Schrafft's, 141 West 42 St., New York. Charles I. Birge, Architect. Galassi installation in restaurant



Candy department of Schrafft's. Flooring by Galassi

Schrafft's Give and Demand the Best

THE Schrafft stores as physical properties reflect the same high standards which have won them a national name for their candies and restaurant service.

Galassi floors are seen at their best in Schrafft's. Best because the conditions of service are obviously severe and because they are in an environment of architectural beauty which both gives to and takes from them those properties which make for the perfect architectural ensemble.

Architects who are designing any buildings at the present time calling for the use of terrazzo floors are requested to get in touch with us.

Send for the special architectural standard specification for terrazzo work fully described on the opposite page.

GALASSI COMPANY

Terrazzo and Tile Work of Every Description

153 East 38th Street, NEW YORK

11 Bennett Street, BOSTON

Terrazzo

THE FLOORING OF CENTURIES

"Suggesting a Standard Specification for Terrazzo Work"
By PASQUALE GALASSI

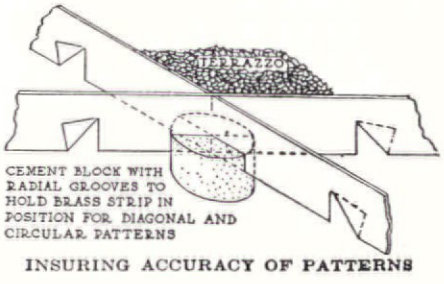
THIS BRIEF PRACTICAL TREATISE HAS BEEN PREPARED IN STANDARD FILING SIZE AND WILL BE SENT TO ANY ARCHITECT UPON REQUEST. COMPLETE REFERENCE AND SPECIFICATION DATA IS PRESENTED.

Preventing Cracks in Terrazzo Floors

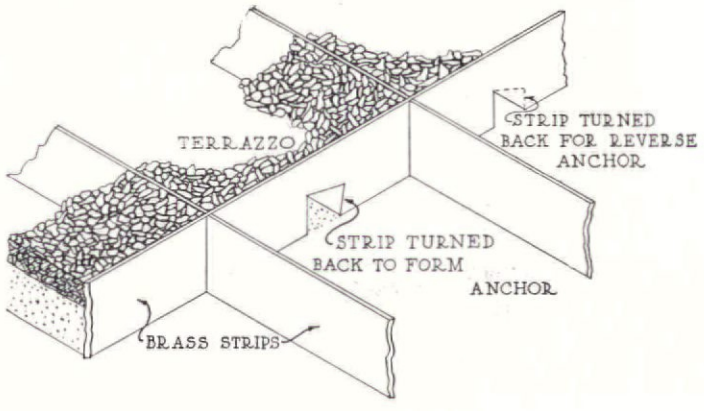
THE cutting up of the surface into small squares or panels, to take care of any expansions or contraction, and the locating of the joints strategically so as to control the cracking directly above the strain of cross steel beams, will eliminate ragged and unsightly cracking.

The most effective means thus far devised is the provision of brass or metal strips, which adds very little to the cost of installation. The strips provide straight line openings for eventual cracks and enable the architect to carry out any decorative scheme of floor in keeping with surroundings, impossible heretofore with terrazzo work on account of prohibitive cost in doing it by the old method.

Under our "Terrazzolay" method, the metal strips are deep enough to cut both the wearing surface and the underbed supporting it, thus dividing the pavement clear to the foundation slab, and rendering it independent of settlement movements. Rigidity is insured by special forms of anchorage as shown in details.



INSURING ACCURACY OF PATTERNS



Estimates furnished on complete terrazzo, and tile installations anywhere.

GALASSI COMPANY

Terrazzo and Tile Work of Every Description

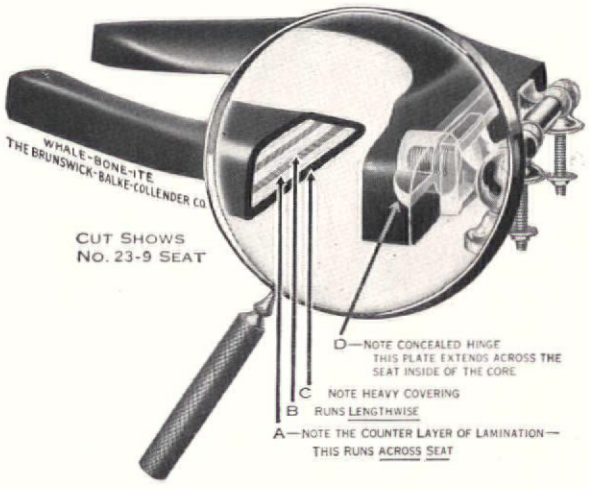
153 East 38th Street, NEW YORK

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Detail of Residence, Huntington, Long Island. Wilson Eyre, Architect

A CHARMING brick composition in which the plastic nature of brick construction is evident. The projecting coping of the gable, resting on corbeled shoulders, the round window, and the chimney tops, show how easily brick fit into the architect's design. In "Architectural Details in Brickwork" you will find many other examples of artistic brickwork in which only standard brick are used. The halftone plates, issued in three series, each in an enclosed folder ready for filing, will be sent to any architect requesting them on his office stationery. Address, American Face Brick Association, 1751 Peoples Life Building, Chicago, Illinois.



10 Reasons Why

Leading Architects Select *Whale-Bone-Ite* Toilet Seats

These Famous Hotels use Whale-Bone-Ite Toilet Seats

RITZ-CARLTON.....Atlantic City
STATLER HOTELS in
Buffalo, Cleveland, St. Louis, Detroit
DRAKE, LA SALLE.....Chicago
MORRISON, SHERMAN.....Chicago
SHERIDAN PLAZA.....Chicago
GIBSON, SINTON.....Cincinnati
CLEVELAND, HOLLENDEN.....Cleveland
DESHLER.....Columbus
SEVILLE HOTEL.....Havana, Cuba
TYLER HOTEL.....Louisville
PENNSYLVANIA.....New York City
McALPIN, EMBASSY.....New York City
WALDORF ASTORIA.....New York City
PLAZA, ALLERTON.....New York City
BELLEVUE-STRATFORD.....Philadelphia
BILTMORE.....Providence
FORT PITT, WILLIAM PENN....Pittsburgh
KING ALBERT HOTEL....Toronto, Canada
AMBASSADOR HOTEL...Los Angeles, Calif.
WILLARD, RALEIGH....Washington, D. C.
Etc., etc.

ARCHITECTS select Whale-Bone-Ite Toilet Seats because they *don't wear out.* No amount of scrubbing wears through the heavy, impervious, vulcanized covering. No shoe heel will scratch it. It cannot split, crack or warp. It is non-inflammable. It never needs painting or varnishing. Its beautiful, glossy finish is permanent. So Whale-Bone-Ite Toilet Seats are practically indestructible.

Here are 10 *guaranteed* features:

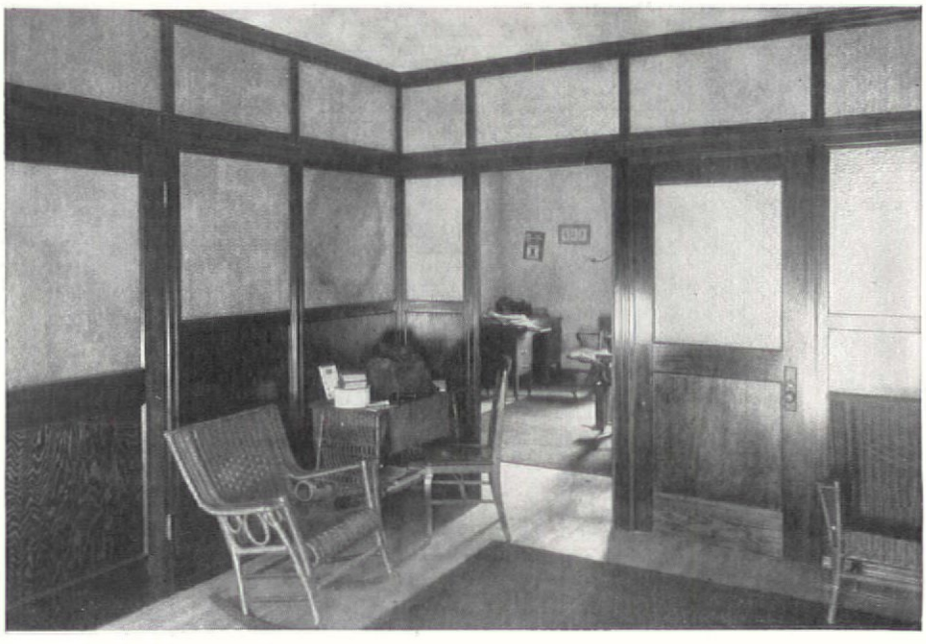
Non-Warping
One-Piece Construction
Sanitary
Non-Inflammable
Easiest Cleaned
Permanent Durability
Acid Proof
No Exposed Metal
Lifelong Finish
Comfortable

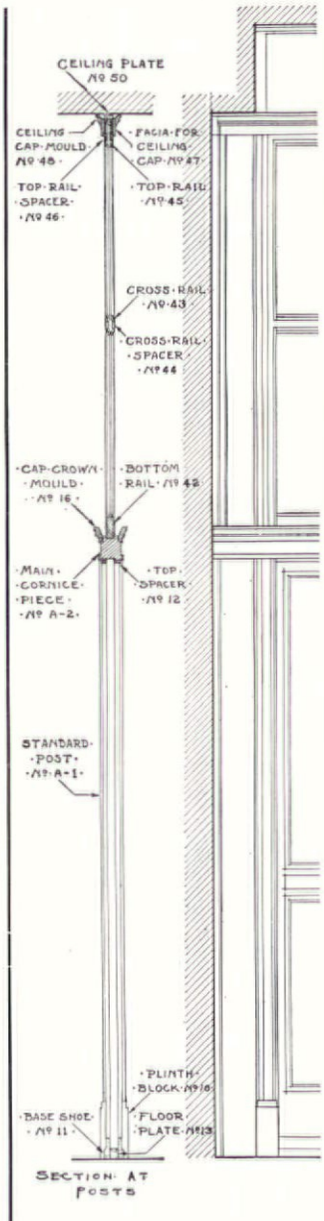
Whale-Bone-Ite Toilet Seats are made of a laminated core covered with a thick coat of hard composition applied under hydraulic pressure. Then vulcanized, finished and polished. The finish is *permanent.* Never needs renewing. Easy to keep clean. Will not absorb moisture or odors, and is proof against acids. Comes in 2 colors, ebony and mahogany. As Whale-Bone-Ite is practically indestructible, and does not need refinishing, the first cost is the last cost.

If your plumber or jobber can't supply Whale-Bone-Ite Toilet Seats, write to Whale-Bone-Ite Division of

The Brunswick-Balke-Collender Co.
623 South Wabash Avenue
Chicago

THE BRUNSWICK-BALKE-COLLENDER CO.
WHALE-BONE-ITE
REG. U.S. PAT. OFF. 1914.
SEAT





PATENT APPLIED FOR

Meeting Architects', Contractors' and Tenants' Requirements

The office partition intended to meet a universal need must satisfy the demands of a wide variety of individuals.

The Architect and Building Owner demand satisfactory appearance, reasonable cost, and long life.

The Contractor looks for low cost of material and rapid, easy erection.

The Business Man insists on dignified appearance and flexibility of arrangement to meet the changing needs of his organization.

The new and improved sectional construction of Circle A Partitions, the fine quality of their cabinet work, and their moderate cost, offer what each of these individuals is looking for.

Circle A Sectional Office Partitions are made in two designs, Cabinet and Commercial; the first, of the finest detail and perfection of cabinet work; the second, simplified with a view to economy.

Both designs are of the same fundamental tongue-and-groove construction, which requires no connecting hardware except a few concealed screws, insures a workmanlike fit, and makes erection, dismantling and rearrangement a simple matter without injury to the finish.

Our catalog gives complete details, plans and full description of Circle A Partitions. To send for a copy for your files, just tear off the bottom part of this advertisement, attach it to a sheet of your stationery, and sign your name

CIRCLE A PRODUCTS CORPORATION
Makers of Circle A Portable Houses and Churches, Portable Bleachers, etc.
712 Neil Street, Champaign, Illinois

Circle A Sectional Office Partitions are made in railing height, cornice height and ceiling height.

In the Cabinet Design, oak and birch, and in the Commercial Design, plain oak and pine, are carried in stock. Other hardwood is furnished to order only.

All Circle A Partitions are shipped knocked down, complete, with all hardware attached.

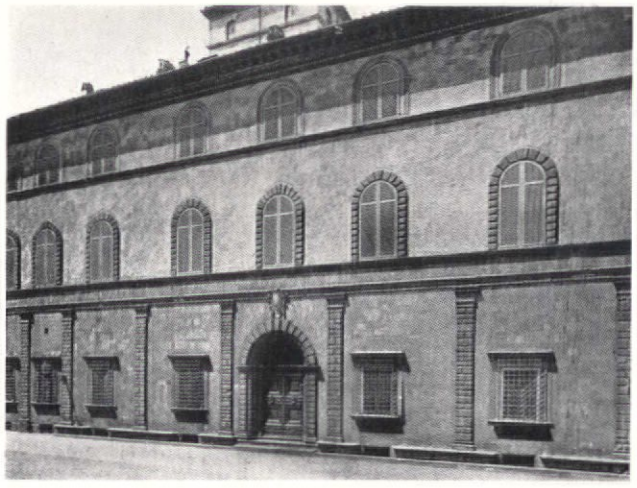
CIRCLE A PARTITIONS

SECTIONAL AND REMOVABLE

BOOK DEPARTMENT

The Renaissance in Tuscany

SINCE the influence of the Renaissance extended into every department of human effort—into the realms of literature, science and religion no less than into the fields of painting, sculpture and architecture—it wrought changes in every sphere of life. But its effect upon architecture was such that it could be neither overlooked nor ignored; it was plainly beheld of all men and claimed and received recognition even from those to whom the effects of the movement in other spheres might have meant little. Even today the term "Renaissance" denotes to many merely a particular type of architecture which grew up in Italy and in countries closely affected by Italian influences during the first century of the movement's life.



Palazzo Bernardini, Lucca
Illustration from "Architecture of the Renaissance in Tuscany"

The workings of the Renaissance came to the architectural world when discovery was made of the adaptability of antique forms to use in new ways. The columns, pilasters, arches, friezes and all the rest of the architectural forms which the classical ages had evolved were found to be useful in buildings intended to serve a later age and purposes which were wholly new. Moreover, the genius of the architects of the time was equal to utilizing these forms in ways which clothed with surpassing dignity and splendor structures which served such widely different purposes as churches and hospitals. The existence of many different versions or types of Renaissance is due to the centering of a district about its principal city from which there extended the influence of its master builders. Thus from Florence, the birthplace of the Renaissance, there spread throughout Tuscany a type of architecture which excelled in grace and beauty, firing the imagination of all Italy and passing far beyond the boundaries of Tuscany to influence the entire world—first throughout Italy, then into France, and finally into every country, where architects and master builders adapted Renaissance forms to the temperament of its people.

The great work on the architecture of the Renaissance in Tuscany edited by Carl von Stegmann and Heinrich von Geymueller and issued some 40 years ago by the *Societa San Georgio,* an organization of Germans living in Rome, ranks with Letarouilly's work on the architecture of Rome as being perhaps the two works on the Italian Renaissance most useful to architects. Every branch of art and science owes much to the painstaking thoroughness with which the Germans execute anything in the way of research. Their work in the way of securing exact data regarding the architectural details of old buildings is particularly careful, and the members of the San Georgio Society secured their measurements from scaffolds which were built for the purpose, while to register precise accuracy in belt courses and mouldings templates of plaster of Paris were taken so that drawings of full size could be made from them at the building instead of afterwards drawing them from bent lead forms or from sketches or photographs hastily made.

With Renaissance architecture rather more than with architecture of certain other types much depends upon the care and skill with which minor details are handled. In architecture of this character ornament is often but sparingly used, and what is used must be made crisp, definite and virile, and this cannot be done unless it is based upon accurate details; if the details have been carelessly drawn or drawn largely from guesswork, the character of the architecture suffers.

The difficulty of securing copies of the original volumes issued by the San Georgio Society has placed them beyond the reach of architects and students who would most profit by them, but this work makes the wealth of detail readily accessible. The plan of the work includes dividing its contents into chapters, each chapter dealing with the work of some one or two Renaissance architects, giving full-page half-tone illustrations of certain work by them with carefully drawn details of those portions most likely to interest present-day architects. Thus Part I deals with the work of Brunelleschi, and there are excellent half-tones of S. Maria del Fiore, the Palazzo Pazzi and San Lorenzo. Part III deals with certain work of Alberti, among others, and in Part V the authors illustrate work by Giuliano and Antonio da San Gallo with more plates. The volume contains a preface by Guy Lowell.

THE ARCHITECTURE OF THE RENAISSANCE IN TUSCANY; Illustrating the Most Important Churches, Palaces, Villas and Monuments. By Carl von Stegmann and Heinrich von Geymueller. 195 pp., almost entirely illustrations; 12 x 16 ins. $27.50. Architectural Book Publishing Co., New York.

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The importance of furniture renders it necessary that the architect be familiar with its development and the changes which came with each of the styles. Any of the books listed will be sent, carriage prepaid, upon receipt of price, to any address in the United States.

ROGERS & MANSON COMPANY
383 Madison Avenue
New York

HILL TOWNS OF THE PYRENEES. By Amy Oakley. Illustrated by Thornton Oakley. 449 pp., 5½ x 8¼ ins. Price $4. The Century Company, New York.

TRAVEL in Spain holds for the architect interest which does not attach in quite the same degree to travel in any other country. It might seem that most of the present-day world has caught something of the craze for modern improvement which only too often involves the ruin of what is ancient and beautiful. Thus in England the traveler finds smart suburban villas crowding the Stoke Pogis Churchyard of the "Elegy," and there are disturbing rumors afloat regarding the crowding of factories into Shakespeare's Stratford-on-Avon. But Spain—faithful and mediæval Spain—preserves the imperturbable calm of other days, and while not altogether ignoring the modern world, surveys it at a distance as it were, from behind the wall formed by her precipitous and rugged Pyrenees. Moreover, architecture in Spain plays a part more important than that which falls to its share in some other lands. Every country of Europe possesses its great examples of characteristic architecture, but in no other country,—not even in England,—is architecture more expressive of the country's temperament; Spanish architecture exteriorly expresses the calm reserve and reticence which are characteristic of the people, while the interior often expresses the gaiety and brightness which the Spanish are likely to be found to possess when once the wall of their reserve has been penetrated.

This volume of travel deals with the Pyrenees section of Spain, with occasional glimpses into France, and it gives a vivid picture of life in towns which crown lofty summits or clamber up steep hillsides,—towns quite unspoiled by improvement, and fully as mediæval as when Columbus set sail to discover a new world to add to Spain's dominions. The interest of architects in the work will be centered chiefly in the illustrations which are from original sketches. Mr. Oakley possesses an unerring taste in selecting subjects of definite architectural value, added to which he has a happy faculty of securing graceful and effective composition, all this expressed in drawing which is strong and yet delicate,—a bold and virile style which never becomes brusque or heavy. The work, and particularly the illustrations, go far toward explaining the hold which Spain exercises over the minds of many who sometimes weary of the turmoil and unceasing change of the modern world.

THE VILLAS OF PLINY THE YOUNGER. By Helen H. Tanzer. 152 pp., 6 x 9 ins. Price $2.50. The Columbia University Press, New York.

STUDENTS of history and archæology, no less than students of architecture, have for centuries studied the plan and arrangement of the villas of ancient Rome. While the passing of centuries and the ruin which encompassed the architectural splendors of the antique world spared here and there some few buildings or other landmarks to aid posterity in reconstructing the life of the Romans, there is little left to help in the study of the Roman villa, and the clues which exist are largely literary rather than architectural. With the necessity of working from data so meagre, patient research and scholarship have accomplished results which are surprising. Drawing plans and studying in paintings or models buildings long since vanished are probably at best a tentative service which scholarship renders to history and architecture, but from the slender data obtainable, such as descriptions of old buildings or wall paintings showing town or country villas, students and scholars have been able to re-fashion the buildings, filling them with decorations and furnishings such as they probably originally contained.

The villas of Pliny at Laurentum and in Tuscany are important. A Roman of means and culture and a patron of the arts, his houses in town or country would reasonably be excellent examples of the home of a representative citizen. Before Pliny's day and during the era of the Roman Republic data regarding the *villa urbana* and the *villa rustica* were recorded by Vitruvius and Palladius, data confirmed by discoveries made at Pompeii during the nineteenth century. In Pliny's letters, however, there were given full descriptions of his villas,—their locations, exterior appearance, plans, decorations and furnishings, the villas being presumably of a type which was used throughout much of the area influenced by Roman civilization.

Miss Tanzer, who is Assistant Professor of Classics in Hunter College, New York, has presented in this volume, which is of interest and value in many ways, the results of her own researches and those of others during centuries of study of the Roman villa and its relations to Roman life, and she has added a number of pages of helpful bibliography to aid scholars in further research into the subject which is important in many ways.

GOTHIC ORNAMENTS, SELECTED FROM VARIOUS ANCIENT BUILDINGS IN ENGLAND AND FRANCE. A New and Revised Edition. By Augustus Pugin. 92 Plates; 9 x 11 ins. Price $2. Sold by C. W. Kuehny, 3558 Bosworth Road, Cleveland.

AUGUSTUS PUGIN was one of those pioneers in the Gothic revival whose work in the field of research entitles him to the gratitude of those who have come later. Had he rendered no other service, his faithful work in studying countless old buildings of the period from the eleventh to the sixteenth century surviving in England and France and recording in permanent form the details of their ornament would cause his name to be blessed by architects. The original edition of his well known work was issued in 1831, with another and more elaborate production soon after 1850, but the work is one which has remained and probably always will remain standard, since in all English speaking countries and indeed all over the European continent it is the *vade mecum* of architects and woodcarvers; it is one of the few books of a technical nature which never become obsolete, and with a permanent demand to be satisfied, it is necessary that its publication be continued. A revised modern reprint of this work requires no excuse, and the aim of the present editor-reviser has been merely to make the volume as complete and satisfactory as possible and yet limit it to a size which could be sold at a price which would place it within the reach of those who would be most likely to profit by it. The work is too widely known to require extended review, but the drawings of details are fully as useful now as they were almost a century ago, having lost none of their old time appeal, for, as already said, the work is a classic.

THE SMALL HOUSE; ITS POSSIBILITIES. By Mary Harrod Northend. 243 pp., 5¼ x 8 ins. Price $2.50. Dodd, Mead & Co., New York.

OF the making of many books dealing with the small house there is literally no end. The small house, indeed, possesses a fascination whose appeal is by no means limited to those whose slender purses demand that their houses—if any there be—should be small, for instances multiply where even the very rich are wearying of the effort involved in the maintenance of large and complicated establishments and are turning with relief to small and comparatively simple habitations. Then, too, there are those among the rich who build and furnish small houses to be somewhat "play houses," in which to pass hours of relaxation,—the American counterpart perhaps of the Petit Trianon, in which French royalty passed the few bright and fleeting hours which could be stolen from court ceremonial.

The small house books which are coming from many presses in growing numbers cover various phases of the problem. Many are frankly books showing exteriors and plans of houses which either may be or have been built; others are concerned with the economic aspects,—the constant battle to secure the utmost for the least expenditure, and works of this class deal with questions of material and plan, and go into the matter of using materials with the smallest possible waste, generally giving useful and valuable chapters on the financial aspect and dealing with loans and mortgages. Still other works go more fully into the matter of furnishing, decorating and equipping the small house when it has actually been built, and to this class belongs Miss Northend's useful volume, the latest of the many which she has contributed to the enrichment of the literature of the somewhat broad range of subjects which are included under "furnishing."

With an excellent background, historical and architectural, the author covers quite fully each of the many departments of the house of small size,—its roof, windows, porch, staircase, fireplaces, kitchen and bathrooms; then she discusses the various and most effective methods of arranging the rooms, lighting fixtures, hangings for walls and draperies at doors and windows—all the details, large and small, which go to making up an interior which is distinctive even though its cost be small.

THE BOOK OF GARDENS AND GARDEN MAKING. Edited by Reginald T. Townsend. 106 pp., 9¾ x 12¾ ins. Price $2.50 net. Doubleday, Page & Co., Garden City, N. Y.

THE close connection between architecture and gardening renders works on gardens perpetually interesting. Gardening indeed, in its more ambitious forms, now ranks as "landscape architecture" and thus claims close kinship with architecture proper. Buildings of many kinds are dependent upon careful landscape work for much of their appearance, and architects are compelled each year to rely more completely upon the skill of those who have made it a particular study.

In this volume there are collected a number of the articles which have already appeared in *Country Life in America*. The gardens shown are chiefly of moderate extent and probably of no prohibitive cost, and the work is full of hints regarding gardening and allied subjects.

English Homes; Early Tudor, 1485-1558

By H. AVRAY TIPPING

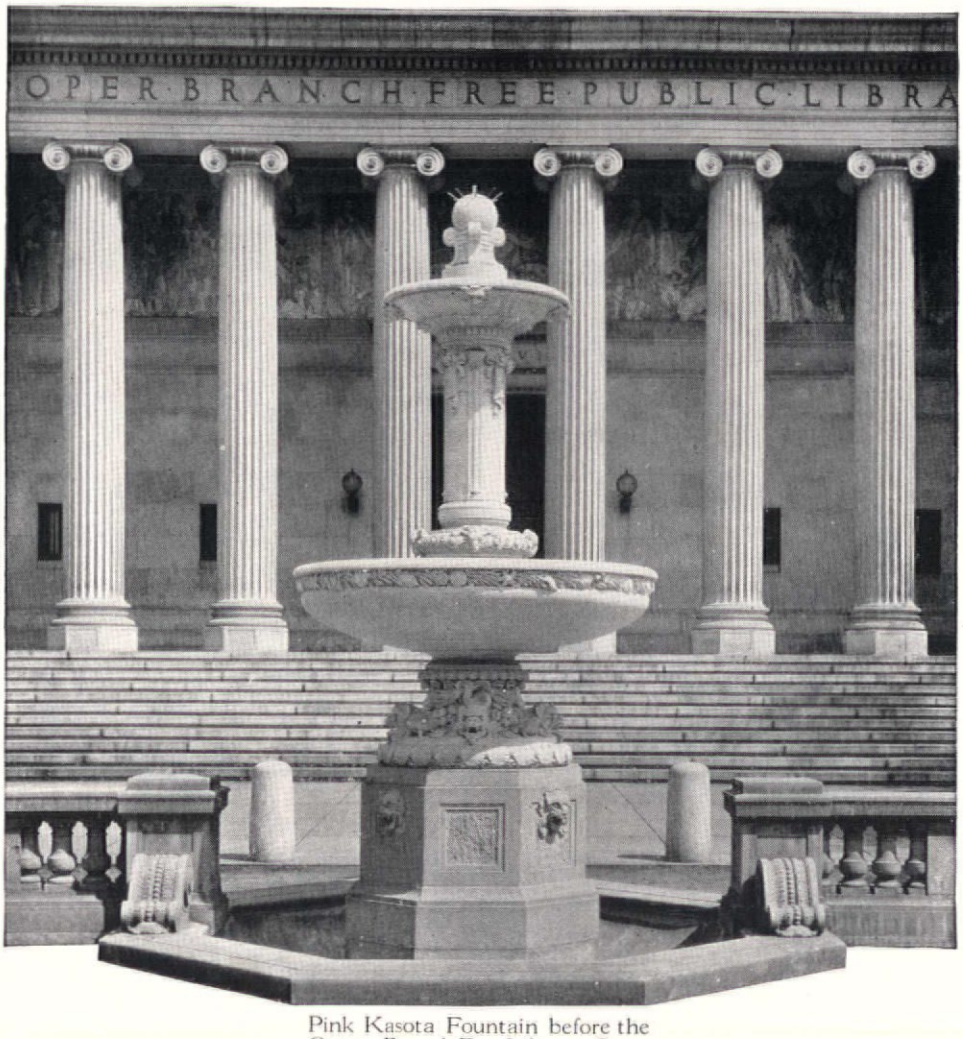
EARLY Tudor buildings supply the modern architect with much in the way of precedent which is valuable in domestic work. The time was before the era of the great town or country palaces, and the manor houses or even the better class farmhouses were of an architectural character which with only minor changes would be appropriate for use today. Stone and brick were used, often in combination. Half-timber construction was being given its most beautiful form of development, and vergeboards, door and window architraves, and other exterior woodwork was being carved, sometimes simply, but often with lavish use of ornament. The interior of the Tudor house was no less beautiful than its exterior; every detail of its architecture was made as beautiful as possible.



THIS volume is lavishly illustrated with exterior and interior views of Tudor buildings in stone, brick and half-timber, with details of chimneys, vergeboards, door and window architraves, ironwork and stone flagging or pavements. Interior views show paneling and wainscoting, plain or carved with "linenfold" and other forms of ornament; ceiling timbers chamfered and polychromed or carved with some of the most beautiful ornament imaginable; more carving upon doors, and glass stained or leaded in windows. Illustrations of fireplaces include overmantels and paneled chimney breasts; fireplace surrounds of stone or brick, and the elevated hearths which were used during the Tudor period. Plans of many of these old buildings add greatly to the book's practical value.

396 pp., 11 x 15 ins. Price $25

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The ARCHITECTURAL FORUM

VOLUME XL — NUMBER 6

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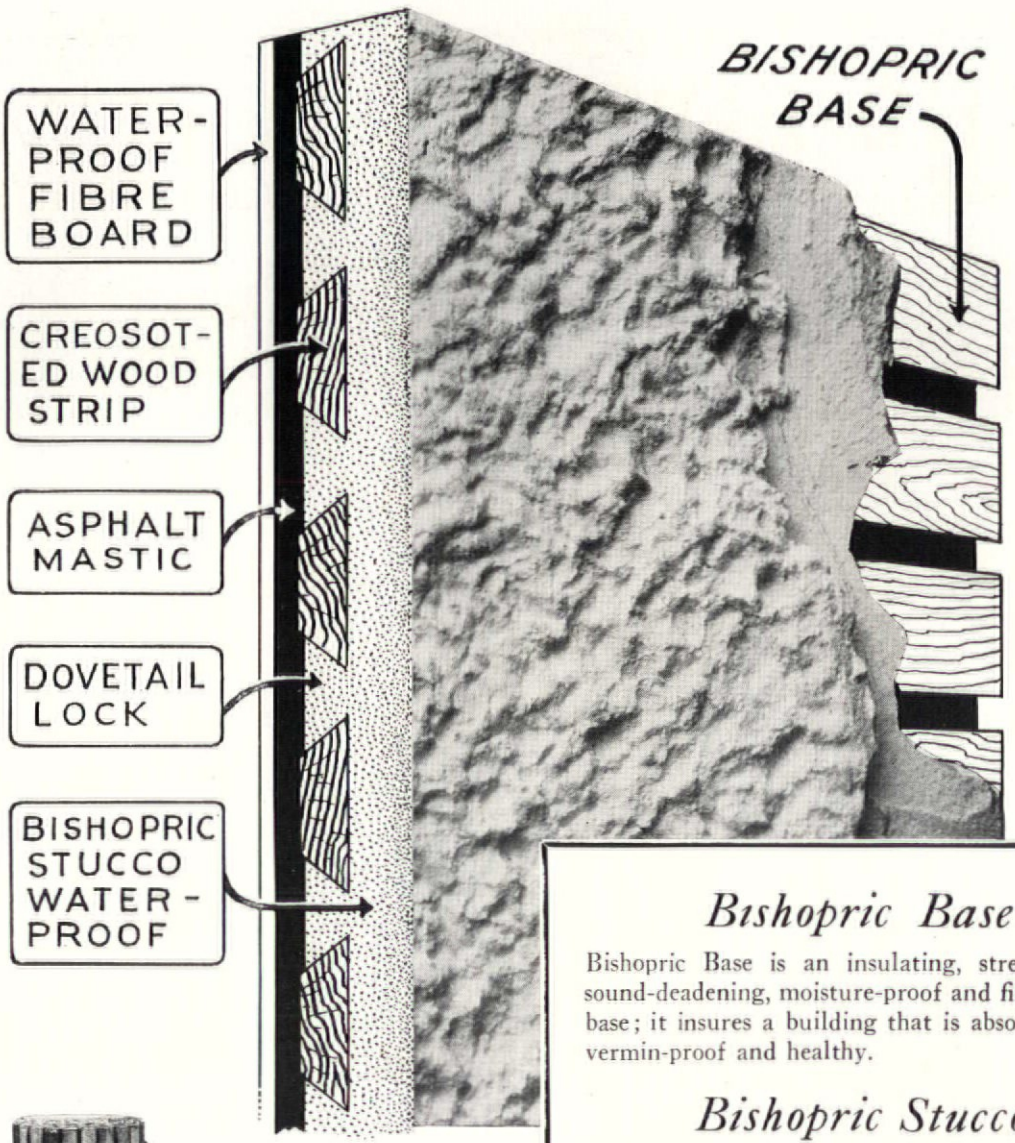
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ALBERT J. MacDONALD, Editor
PARKER MORSE HOOPER; PAUL W. HAYES, Associate Editors

Published Monthly by
ROGERS AND MANSON COMPANY
383 Madison Avenue, New York

Albert J. MacDonald, Pres. and Treas., Howard Myers, C. Stanley Taylor, Vice-pres., Robert Sweet, Sec.
Yearly Subscription payable in advance, U.S.A., Insular Possessions and Cuba, $6.00. Canada, $6.75. Foreign Countries in the Postal Union, $7.50
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THE EDITOR'S FORUM

A COUNTRY HOUSE COMPETITION

WITH a view to encouraging the movement away from the city and toward the country, and also in the hope of promoting good country house architecture, the publishers of *Country Life in America* announce a competition for plans and drawings of a suburban home appropriate for the environs of an American city. The sum of $500 is offered as a prize for the winner of the competition, which is open to any architect, draftsman, student or layman under the terms and the requirements which are set forth in a circular which is being issued by the publishers, Garden City, N. Y. In addition to the prize offered there are to be three "honorable mentions" conferred for the plans and drawings which are regarded as being next in merit. The sketches and plans for these three mentioned houses, together with those of the winning design, will be rendered by a well known artist and reproduced in full color in some future issue of *Country Life*.

The competition, which will be closed October 1, 1924, will be judged by Alexander B. Trowbridge and John Russell Pope, architects, and Reginald T. Townsend, the Editor.



"Icarus"
A Statue by Robert Carlton Wakeman, Sculptor, to Be Presented as a Trophy at This Year's Boy Scout Annual Competition

TROPHY FOR BOY SCOUTS

THE National Aëronautic Society of the United States will award to the troop of the Boy Scouts of America whose member builds the fastest model aëroplane entered in the Boy Scout Annual Competition to be held next autumn, a statue which has been recently completed by Robert Carlton Wakeman, sculptor. The statue, which will be known as the "Mulvihill Trophy," is 21 inches high and was inspired by the story of Dædalus and his son Icarus, two characters of classical mythology who escaped from the Labyrinth by building for themselves wings of wax and feathers. The figure stands upon the upturned face of Æolus, the Wind God, which in turn rests upon a three-tiered base bearing the Greek symbols of water, the stars in the sky, and the upper tier the domain of the Wind God. The statue is described as possessing considerable grace and a whimsical charm in keeping with its subject as well as excellence of execution.

The awarding of the commission for the trophy and the prize of $100 which accompanied it was done after the holding of a competition in which many well known American sculptors took part.

WOODCUT ANNUAL

IT is desired that the 1925 issue of the *Woodcut Annual*, now in preparation, be especially helpful in promoting the art of the woodcut and in meeting the needs of artists, amateurs and collectors of wood engravings. It is intended that it shall deal fully with contemporary work, in color as well as in black, and it is therefore particularly to be desired that artists coöperate with the editor in giving him the necessary information regarding their work. Upon this coöperation depends the completeness of the volume. The Editor is Alfred Fowler, 17 Board of Trade, Kansas City.

AWARD OF GOLD MEDAL

AT a recent meeting of the Boston Society of Architects the recommendation of the Executive Committee on the award of the Harleston Parker Gold Medal was accepted, and it was voted that the medal be awarded this year to Parker, Thomas & Rice for their design of the John Hancock Life Insurance Building, at Clarendon, Berkeley, and Stuart Streets, Boston.

A CORRECTION

PAGE 67 of the advertising section of the January, 1924 issue of THE ARCHITECTURAL FORUM carried a full-page advertisement of the American Brass Company, part of which was an illustration of an architectural detail manufactured for the Federal Reserve Bank building, New York. Owing to an oversight in preparing the copy the name of the architects was given as Trowbridge & Livingston instead of York & Sawyer, to whom credit is due.



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The ARCHITECTURAL FORUM

VOLUME XL JUNE 1924 NUMBER 6

The Architecture of Retail Stores

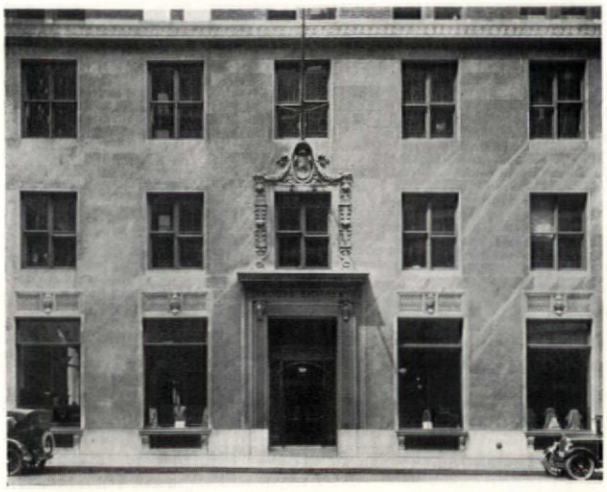
By WILLIAM LAWRENCE BOTTOMLEY

EVERY great city which is not merely a commercial center possesses some characteristic in a particularly marked degree. New York's chief characteristic is entirely its own, for there is no city in the world in which life is so driving. This is expressed by the constant struggle which goes on to keep pace with the thought and tendencies of the entire world, and the effort which the struggle costs is reflected in the sleepless, restless crowds and in the unsatisfied, incomplete, overstrained exertions of one city to rival the energy, intelligence and accomplishment of all countries.

New York, indeed, viewed in one aspect, suggests a World's Fair—one of those vast enterprises, international in scope, where there is presented a survey of the progress of the race and the achievements which have been reached in all the arts and sciences. Many great cities of the world exhibit the varied industries and myriad interests which one associates with a World's Fair. New York, like a World's Fair, expresses the idea of infinite and boundless energy, but resembles it less than London or Paris, for New York was never essentially a manufacturing city, but a port, a Mecca, a city of extremes, that must be understood to be appreciated; yet the port turned itself into a market for the valuable industries it created. The actual building of the city itself has made a vast market for labor; the development of the decorative arts has formed another; but the practical and æsthetic adornment of the city's millions, their homes and their places of amusement and instruction, has been by far the greatest inspira-



A Parisian Shop Front of the Period of Louis XVI



Shop Windows, Brooks Brothers, New York

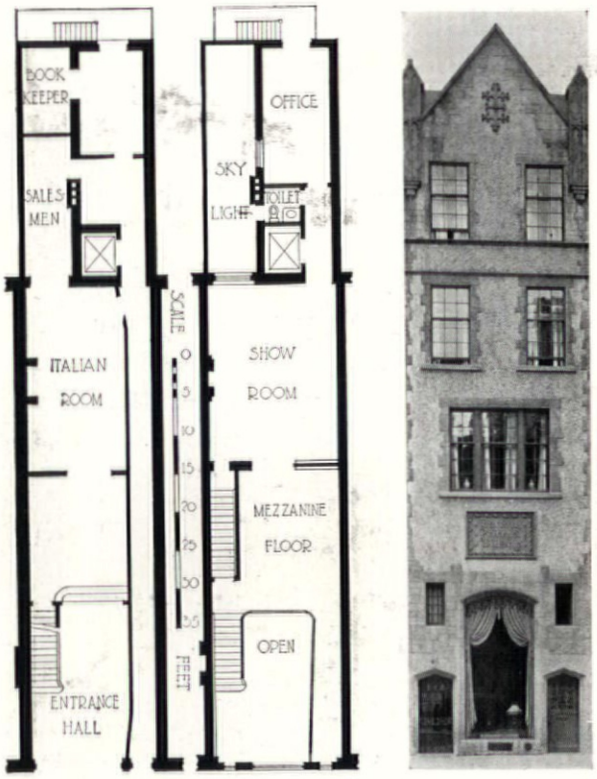


Cartier's, Fifth Avenue, New York

tion for its architectural and artistic development.

A certain portion of New York between the Pennsylvania Station and Central Park, rapidly centering nearer the park, is becoming a veritable World's Fair. Upper Fifth Avenue, Fifty-seventh Street, and to a certain degree the adjoining streets and avenues, present to the eye of the passer-by an endless variety of everything the human heart can desire from a lollipop to an Egyptian carving of the XVIII Dynasty. From examples of the whole range of art to the most fleeting whim of personal adornment is perhaps a wide range, but not too wide for our World's Fair, to which New York has been likened.

The problem of how to best show these wares to the public has not been well solved on the whole, and if one considers the matter from a broad point of view, there are but few examples to be seen that offer a perfect solution. It would seem patent to the most average mind that the show window of a shop should attract attention to the wares it contains. First of all, as one passes along the street, the building with its principal focus near the sidewalk should arrest the eye and create a feeling of interest and then a sense of attraction. It has been said that any advertising is good advertising, and that wide but unfavorable publicity is far better than none. It is



Floor Plans and View of Exterior, Shop of Barton, Price & Willson, Inc.



Fifth Avenue, 56th to 57th Streets
Duveen's at the Left

not proposed to either defend or attack this point of view, but it is self-evident that wide and favorable publicity is the ideal to be sought after.

The store front proper, as a next requisite, should so frame in the window display that it forms a becoming setting, definitely separating the composition in the window from its surroundings, harmonizing with its contents and cutting it away from any disturbing or competing forms and from any possible adjoining incongruities. The original framing of an Italian primitive or the bold decorative frames of a Spanish painting of the period of Velasquez illustrate this point to perfection. Seen at a distance, either arrests attention by the interesting outline and bold treatment of its color. Both are intrinsically beautiful, strong and command attention. They definitely separate their pictures from all others that surround them and, most important, they harmonize with them in scale, design and color. The same thing might be said of the beautiful gilt frames of the period of Louis XV which have been much used ever since they were invented, but which have been perhaps too much used, and so badly copied that they are now stale and commonplace, and for that reason fail to attract any attention or even to be noticed at all, the result of centuries of unwise use.

The framing of the show window should answer these requirements, but in addition should have its proper relation to the entire building, from both a structural and decorative point of view, and it is at this point that most of the designs fail. It is here that the design of the windows of Brooks Brothers (page 234) is so saliently successful. It is a conservative shop with an established trade. It does not cater to the mere passer-by. The windows are well proportioned, simple and admirably related to the upper part of the building, and while large enough to contain adequate displays, they are so reserved in size, in relation to the whole building,



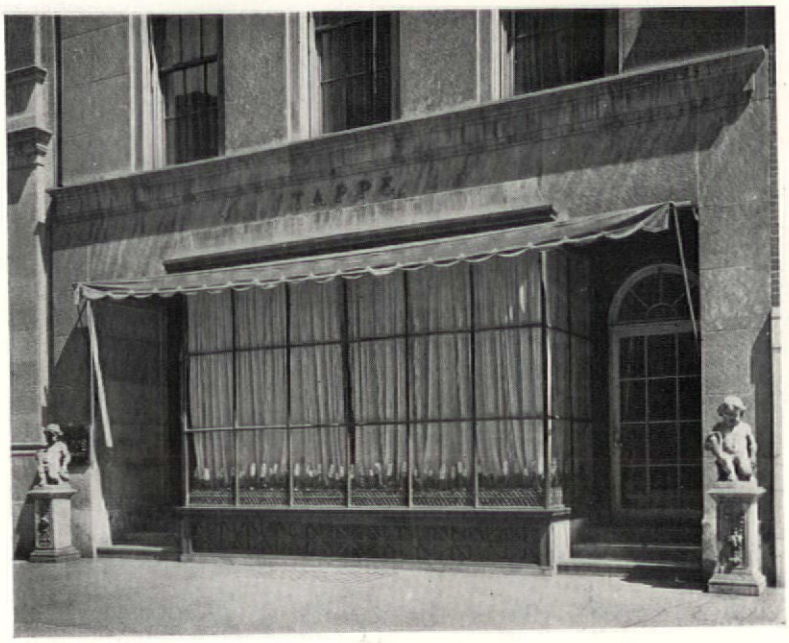
Maximum Window Area in Narrow Front
Montague Flagg, C. F. Rosborg, Architects



Facade at 6 East 56th Street
W. L. Bottomley, Architect; A. P. Hess, Associated



16 East 56th Street, New York
Trowbridge & Ackerman, Architects



Excellent as to Scale; Admirable in Design
Kenneth M. Murchison, Architect

that they give an impression of distinction, restraint and aloofness well calculated to express the traditions of the establishment, now so long upheld.

The windows of Cartier's jewelry store (page 234) are perfect in every respect except in the way they relate to the upper part of the building. It always gives one a shock to see the clash in scale and design between the classic and rather Italian palace type of the old house in the upper stories and the beautiful, delicate and decidedly French treatment of the lower story. The windows proper are very interesting with a frame of bronze and verde antique marble. The plate glass, which is certainly the most practical material for a shop window, is divided in such an unusual way that the commerciality of the material is entirely lost while the delicate scale and choice materials form a setting for a display of jewelry or bibelots which it would be hard to surpass.

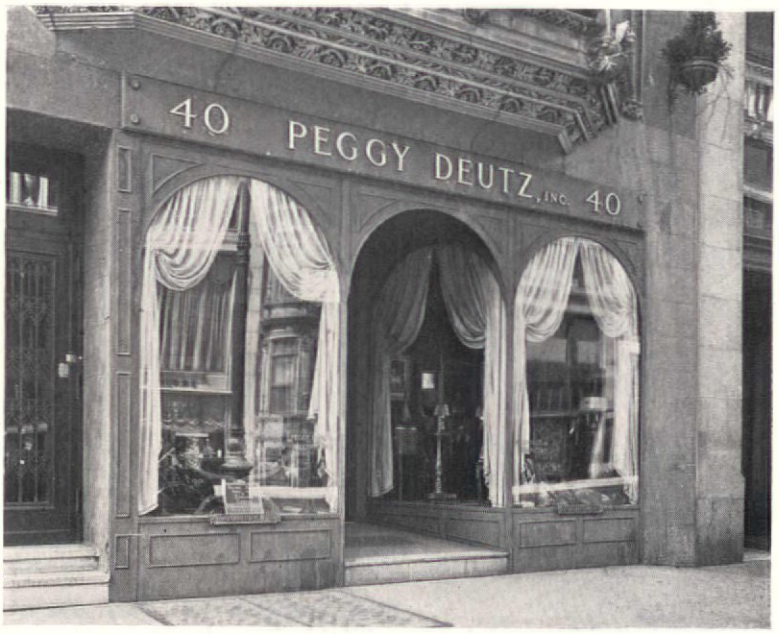
Another consideration which should enter into the study of the design of a store is the relation of the style of the building to the merchandise which it sells. Of course the question of historic styles has been greatly overemphasized in this country, and not enough good work is being done in our own idiom, but there are certain cases, as for example, that of Cartier's, to mention that excellent piece of work again, where on account of the renown of its headquarters in Paris it was appropriate to give it a distinctly French flavor. The show window of the shop of Elsie Cobb Wilson, Inc., on East Fifty-seventh Street (Plate 91), which was very cleverly adapted by Mrs. Wilson herself from an old English shop front, is essentially American and Colonial in its effect, and while it is very quiet in color and restrained in line, it is one of the most interesting pieces of design that one knows of. The delicate wood arches, the pilasters, friezes and cornices, the complicated but beautiful design of the muntins are very closely akin to the decorator's art and further express in their delicate detail the charm and distinction of Mrs. Wilson's own work. The whole shop front has been painted a dark bottle green so that one has to be very alert to notice it at all, but when once seen it is well worth careful study. The arrangement of the show window and the entrance to the building and the first story shop are handled in a most able way, which is truly satisfying.

Since Fifty-seventh Street bids fair to be the most fashionable and popular shopping street in town it is quite natural that many of the best shops are found there, and as the proprietors of these shops give more time and thought to their setting and surroundings, it follows that most of the well designed stores are found on that street. Barton, Price & Willson, Inc. (page 234), a firm of decorators have done over a whole building after the designs by J. P. Weir. The scheme is simple in its essentials and quiet in effect, as all good design should be, but it is very original in its plan and a decided departure from the conventional thing in its detail. The shop occupies the first two floors of the building and is arranged so that the front part extends



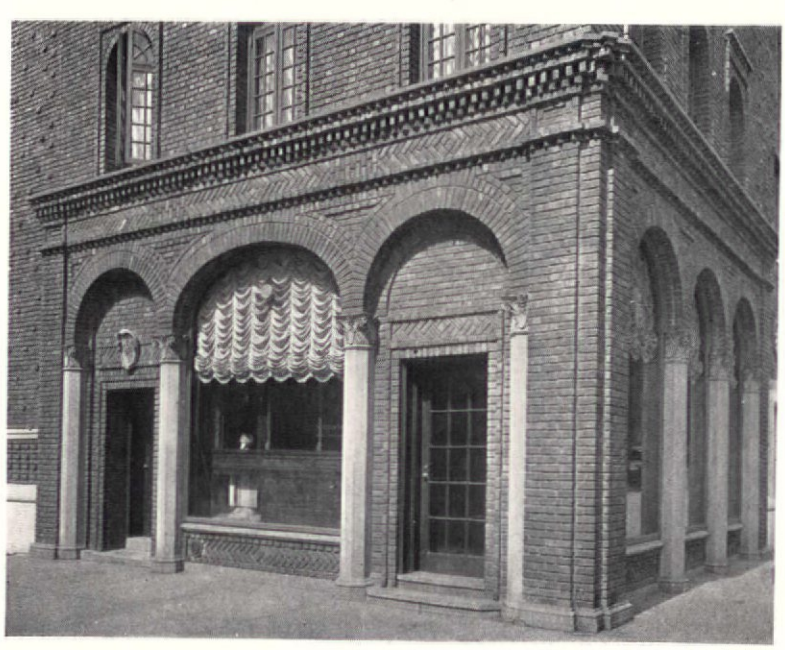
A Striking Use of Ornament in Relief
Shape & Bready, Architects

up through the entire height of these floors for a distance of about 25 or 30 feet from the street. The show window, which finishes in a pointed arch, also extends up almost as high, and this throws a flood of light back into the showroom and at the same time provides a very dramatic and becoming lighting for all the objects inside. It will be noticed from the plan that the main entrance to the building passes under a balcony on the west side and back to the stairs and elevator in the middle portion of the building. The rear and both sides of the shop have a generous mezzanine balcony which forms a very picturesque feature of the interior with its delicate stairway and wrought iron railings. The store front proper, the whole facade of the building and the interior of the showrooms are carried out in a very harmonious way. The style is picturesque with a certain Gothic feeling that is at the same time free and modern and yet full of the robust romance of the old Gothic work. The color is restrained to a wide range of values in gray and varies from a buff through beige to a cool stone gray. The walls of the interior have been given an antique plaster finish which forms an excellent background for the works of decorative art displayed against them. From many points of view this is one of the most interesting retail shops that has been done in New York.



An Effective Use of Simple Architectural Treatment
The Utmost in Show Window Area

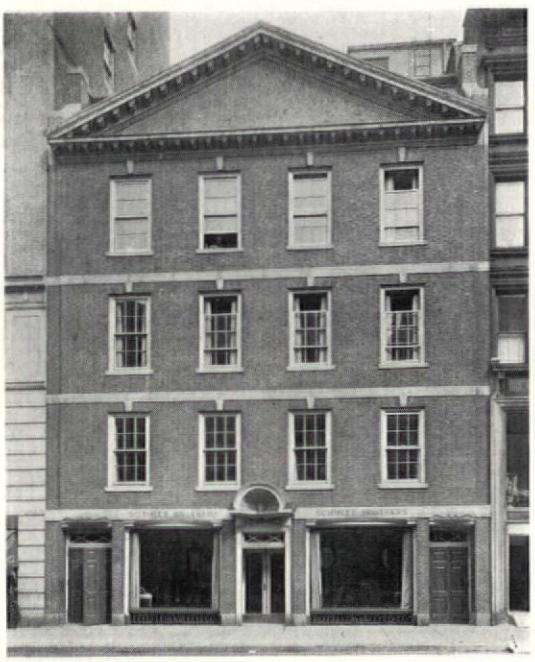
Another type of store that is diametrically opposite in its object and conception is being seen with increasing frequency. It has been developed from the need of large show window space in a limited front. The type is illustrated by the Avedon arcade at Fifth Avenue near 39th Street (Plate 84) which was done by Harry Allan Jacobs, who is said to have been the first to use this arcade plan in New York, and by the store of the Fain Knitting Mills near 42nd Street on Fifth Avenue, and a number of others. Here the center of the front opens through a short passage with show windows at either side into a circular or octagonal vestibule, also entirely surrounded by show windows and frequently with a show case in the center of this space, and the door to the shop opposite ends the short passage. The construction of all these windows and show cases is of the lightest possible, bars of metal holding the glass together, and with carefully placed displays lighted from above by colored "floods" and from the front and bottom by theatrical "strip" lights, the effect is at the same time attractive and inviting. The scheme is so original and so perfectly adapted to its ends that it is bound to come into far more general use. Among many advantages it makes possible an arrangement and a number of show windows, before the store is itself entered, which, if located on the street facade of the building would require a frontage many times the footage used for the arcade plan of entrance. Other advantages derived from this new plan are the comfort and convenience of the shoppers, who can examine articles displayed.



Excellent Use of Unusual Opportunities
Arthur Loomis Harmon, Architect

Architecture is the most conservative of all the arts. It requires a far

greater physical effort to produce a building than a picture, on account of the limitations of construction. The types of building change far more slowly in the development of design, than does style in painting and sculpture. The illustration shown here of an old Paris shop front built in the period of Louis XVI exhibits the contrast and at the same time the similarity of the work that we are doing today. This particular design is one of the most beautiful examples of a style which reflects the classic tradition, the careful balance and studied scale and proportion so characteristic of that time. The front, which is entirely of wood and glass, is in the Metropolitan Museum and forms a part of a collection brought to this country by the late J. Pierpont Morgan. The show window is framed in by Corinthian pilasters, modified as all classic detail was modified by the taste of that time. The scale is small, the carving is crisp and beautifully executed, and a certain restraint amounting almost to primness is felt throughout the work. Large panes of glass were not made at that time, so that of necessity the show window was divided into small panes held together by well moulded muntins. The design of the door and the transom, is, however, the most unusual part of the design and gives character and accent to the whole composition. It is bold but light, and while quite different in feeling from the rest of the work it still harmonizes with it perfectly. How fortunate it is that it has been preserved intact! Who in making a restoration of these motifs would have thought of doing them in this way? This small shop front executed in perishable material makes one pause to wonder if in decorative design we have advanced so very far in the last 150 years! As we still go back to such precedents as this French shop front, and to equally charming English examples, to design a shop front possessing refinement in scale and detail, it would truly seem that after all we are still very dependent.



Shop of Madison Avenue Antiquarians
G. V. Smith, Architect



Excellent Show Windows on Two Floors
Frederick Mathesius, Architect



Value of Small Panes Demonstrated
Butler & Rodman, Architects



Stores in The Spanish Style

ILLUSTRATING MODERN TYPES OF RECENT CALIFORNIA WORK

MORGAN, WALLS & CLEMENTS, ARCHITECTS

BUSINESS men long ago agreed that it is part of good merchandising methods to create for the exhibition and sale of their wares an environment or setting in which the merchandise would be presented to the prospective purchaser in its most attractive form. Evidences of the widespread prevalence of this attitude upon the part of merchants and shopkeepers are the increased attention which is being given to the character of their window displays, the thought and care with which the show windows themselves are designed, and in many instances the installation, at considerable cost, of special exhibition rooms in which merchandise may be arranged in ways which enhance its value in the purchasers' eyes and facilitate the sale of the wares exhibited.

The business world, moreover, now regards at its proper value the architectural character of the buildings in which business is conducted, and at its behest architects have drawn freely and heavily upon the store of architectural precedent which past centuries have bequeathed, with results which are always interesting and frequently successful from the viewpoints of the architects themselves and of the merchants who are their clients. Where the results have not been successful, the reason is often to be found in the fact that choice was not wisely made among the variety of types of architecture and decoration which exist, or that the adaptation of a type has been made with little regard to its being appropriate or to the needs of the locality where the shop is situated. Only too often have architects persuaded their clients (or else have been coerced by them) into use of the stereotyped "bronze front" precedent which now prevails almost everywhere, to the neglect perhaps of other types which by reason of their particular suitability or by their association with the locality would be especially attractive to patrons, and which by appealing to their good taste and sense of the fitness of things would assist in the sale of merchandise, which after all is the chief aim of the shopkeeper. A merchant who evidently believes in having his business premises planned and designed by an architect rather than by a mail order house is said to have remarked recently that "good architecture in everyday commercial work was not only a splendid investment but actually dropped dollars into the owner's pockets"—from which it would appear that at one and the same time the amenities of architecture were duly observed and the God of Commerce served.

The early Spanish Renaissance type of architecture possesses a number of advantages which have brought about its wide use upon the Pacific coast and particularly in southern California, a region with which it is historically identified. It is a type which offers many advantages which render it particularly appropriate for shop buildings of certain kinds, and California architects who have been quick in recognizing these advantages have in a number of instances created notable shop building groups. The style is used with particular success where structures are low in height and where there are wall spaces sufficiently ample to afford the contrast be-



TIMBERED CEILING AND WALLS OF TEXTURED PLASTER AS BACKGROUND FOR FURNITURE

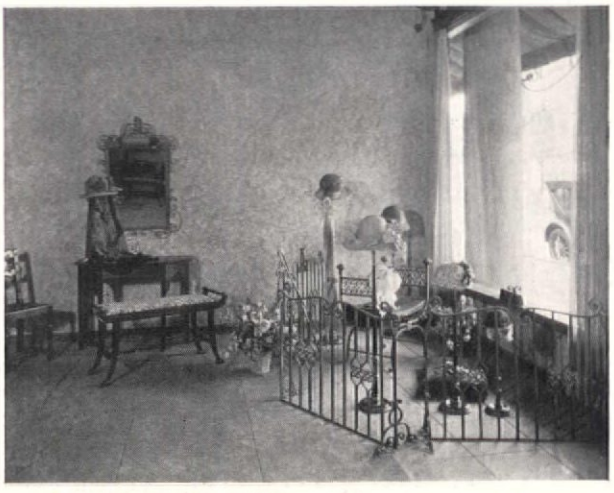


ONE OF A GROUP OF BUILDINGS IN SPANISH STYLE IN LOS ANGELES

MORGAN, WALLS & CLEMENTS, ARCHITECTS



Candy Shop, Westlake Park District, Los Angeles



Millinery Shop, Hitt Building, Los Angeles

tween plain stucco walls and the small areas of more or less elaborate ornament in relief which are used with such telling effect in panels and friezes or about certain windows and entrance doorways. Windows are frequently massed in groups. Opportunities for the use of ornament in other forms are not lacking, for ironwork is used in guards placed in balcony fashion at windows or in the grilles which often cover entire window areas, while color is used in soffits of different kinds, for the ceilings of vestibules which are practically loggias, upon shutters or blinds, and sometimes for painting directly on the walls themselves, stenciling on the stucco surfaces.

The characteristics which render the Spanish Renaissance type so appropriate for exteriors of shop buildings are equally useful in arranging their interiors. The grouping of windows which is so effective from without is quite as successful within, and the broad, unbroken spaces of wall which afford opportunity for the effective use of exterior ornament are useful for arranging wall cases and shelving in shops of certain types or for the hanging of



Hitt Building. Small Shop Buildings in Spanish Style Offer Opportunities for Beautiful Grouping

tapestries and paintings or for the arrangement of furniture in shops of some other kinds. So flexible is the type that it may be given a treatment which is highly ornate or severely simple, the aim being, as it should always be in planning a shop interior, to create a tasteful and attractive setting for the merchandise to be sold or the service rendered therein. The use of the Spanish style also presents unusual opportunities for employing accessories and furnishings which add materially to the interest and beauty of their surroundings. Tiles may appropriately be used upon walls and floors, wrought iron in countless forms such as lighting fitments and the grilles or screens about cashiers' booths, while the actual furniture, such as show cases and counters, and tables and chairs where they are used, may be equally "Spanish" when severely simple or, where a more elaborate treatment is desired, decorated with painting in gold and colors.

The illustrations included in these pages show the exteriors and interiors of a number of shop buildings and individual shops in Los Angeles. The architects, Morgan, Walls & Clements, have been unusually successful in obtaining an insight into the spirit of the style, and the buildings are in full accord with the Renaissance of Spain, and yet they are thoroughly practical and well suited to the purpose for which they are intended. Utility has been clothed with a garb of beauty without sacrifice of anything which good business methods demand, and inasmuch as purchasers are, without always realizing it, drawn to shops which are attractive and interesting, the keepers of these shops possess a certain advantage in offering their wares or their services.

The illustration at the top of page 239 shows a



Walls of Stucco; Cast Stone Ornament; Thorpe Building, Los Angeles

group of three shop buildings, that at the left being built for the Fifth and Broadway Investment Company, that in the center belonging to the Bilicke Estate, while at the right is the Thorpe Building. These three structures occupy corner plots with long frontages upon a prominent street and shorter frontages upon other streets, and they face a strip of parkway in which the edges of a lake are bordered with semi-tropical verdure. All the buildings have walls of brick coated with a rough, wavy-textured stucco, two buildings being a dark cream buff, while one is gray. In keeping with the Spanish style in which they have been designed, the buildings are low in height, partly but one story high, partly two, while a portion of the Thorpe Building is a rather narrow pavilion four stories in height. The structures are well grouped and composed, with low hip roofs covered with tile or with flat roofs surrounded with parapets which are themselves



Simple Fenestration, Giving Excellent Show Windows



Polychromed, Antiqued, Cast Stone Ornament

covered with tile. These roofing tile are of varied clay colors and are laid irregularly, doubled or tripled at the eaves, which gives an interesting shadow line on the wavy-textured wall surfaces. Windows of the upper stories of these buildings are attractively grouped and ornamented with plaster and cast stone decoration in high relief. Individual doorways and windows at the sidewalk level are treated in similar fashion, but where a number of shops are placed side by side, involving large areas of window and door space, the shop fronts have been treated as a single unit, their upper portions arranged as a continuous frieze and the entire composition drawn together by a uniform method of treatment. To prevent the marring of the appearance of the buildings by signs of many kinds, use has been made of the parapet above the shop facades for such signs as are necessary—not sign boards, but metal lettering of a nearly uniform style fixed directly upon the walls. One of the illustrations of these Los Angeles buildings shows the interior of the shop of an antiquarian or decorator and offers an idea of the value of walls of somewhat rough and appropriately toned textured plaster as background for tapestries, fabrics and paintings. The ceiling with its timbers visible adds materially to the Spanish character of the room by exposing the construction, and the grouped windows high above the floor at one end of the shop admit necessary light without unduly breaking up the wall surface, a show window here being impossible owing to the space outside being used for parking automobiles.

Also characteristically Spanish, though of a somewhat different appearance, is the McKinley Building. This structure is not built upon a corner plot but occupies space about 50 feet in width in the middle of a block. An absolutely symmetrical facade has been used, the arched entrance in the center giving access to the two ground floor shops as well as to the offices on the second floor. The large show windows to the right and left of the entrance carry the arched treatment across the lower story of the building, while above are balconied French windows, each surmounted by elaborate decoration, and all the windows are connected by panels of ornament to give the effect of a deep frieze across the facade. This ornament, which is of cast stone and is high relief, has been antiqued and decorated in colors and affords a rich contrast with the wall surface of plain stucco. Added contrast is given by the placing of the metal window guards in balcony fashion between the highly ornamented jambs of the second floor windows, all this giving strong, satisfying accent.

Of a still different order is the Hitt Building,



General View of McKinley Building, Los Angeles

which again occupies a corner plot and consists of a row of one-story shops with a second story only at the corner proper. The long one-story portion has been handled very simply as a colonnade, the shop fronts being recessed within the row of columns which support the entablature. Here again the exterior walls have been covered with stucco which is hand-textured, the color being a soft gray with a suggestion of green. The two-story portion of the building is covered by the familiar Spanish low hipped tile roof, and the coping or parapet of the one-story portion is covered with the same tile. Cast stone has here again been used for panels above certain important doorways. At the corner the building has been recessed 4 feet behind the one-story portion, the small area thus formed being partly paved with flagstones and partly planted with shrubbery. Two large show windows at the corner of the ground floor have been given the bold Baroque outline which one sometimes sees in old Spanish buildings, and perhaps the crowning bit of ornament is found in the windows of the second story with their delicate bronze grilles arranged baluster fashion, elaborately wrought iron balconies or window guards, and polychromed wooden shutters. The entire exterior of the Hitt Building constitutes a study in color,—the polychromed shutters, the woodwork about doors and windows antiqued to a glazed moss gray, the metal tones of wrought iron, the tiles of roofs and parapet, and the striped awnings of the colonnade shops,—all this against the gray-green of the rough-textured stucco walls themselves.



Bold, Effective Use of Ornament

The architects of these Los Angeles shop buildings were fortunate in the fact that the structures are placed so closely together that they form a group or a series of groups, for the structures are not so disposed among other buildings of greater heights and of nondescript character that they are obliged to compete with them upon manifestly unequal terms.



One of a Group of Shop Buildings, Westlake Park District, Los Angeles

Essential Details in Store Designing

By ELY JACQUES KAHN

IN planning any store the type of establishment, the location and the desired effect are the determining factors that must guide the designer. It is also essential to bear in mind the fact that the purpose of the store is not only to display merchandise but to enhance its sales value, so that practical requirements must be considered in the design of the display cases or counters. An equally serious consideration is that most store owners are particular about the cost of their work and dislike unwarranted experiments in design that may prove unexpectedly and unreasonably expensive. It is fortunate that in recent years a clear recognition has developed of the actual value of a beautiful store, since the main difference between the attractive and the unattractive result lies in the direction that an intelligent designer can give to the work, and the cost is likely to be approximately the same. Let the solution be practical, and the owner will be interested in seeing a new arrangement of his goods in an attractive setting.

Inasmuch as the theory of the successful store is first to interest the customer by means of the show window, it may be pertinent to analyze a few characteristics of this portion of the shop exterior. An automobile salesman wants cars shown on the street level. Furniture display windows require the lowest elevation from the street. Dresses should be shown in the normal relation of the customer's eye to the model on which the dress hangs. Jewelry and similar small articles must be nearer the eye and not dwarfed by the scale of a large window setting. The design of the show window proper is not only dependent on the height of its floor but also on its depth. This dimension is also determined by the character of the merchandise and has been standardized to quite an extent. Furniture, for example, requires a depth of approximately 12 feet, in which a reasonably interesting exhibit can be made. Department stores find 8 feet satisfactory for general display purposes. It is evident that where small articles are to be placed the shallow window with high floor is to be preferred. In the illustration of the Oppenheim Collins & Co. store in Brooklyn the arrangement and proportion of the show windows can easily be seen. Note that the floors of these windows on account of the type of goods to be displayed are almost on the sidewalk level. The design for this retail store shows a typical solution of the problem of securing scale in store facades. Had it been commercially expedient to carry down through the show windows the stone piers of the second and third stories of the design, a more perfect combination of architecture and commercial requirements would have been attained. The illustration of the interior of the main floor of the Oppenheim Collins & Co. store indicates the care taken by this firm in the arrangement of its show cases and counters.

It is interesting to note that the merchandising theory of an establishment has another important influence in the shop window design. A store specializing in low priced articles for popular consumption shows in its windows a great quantity of goods and little architecture, while the higher priced shop will carefully display a few well chosen objects.

In the lighting of the show window, which is of



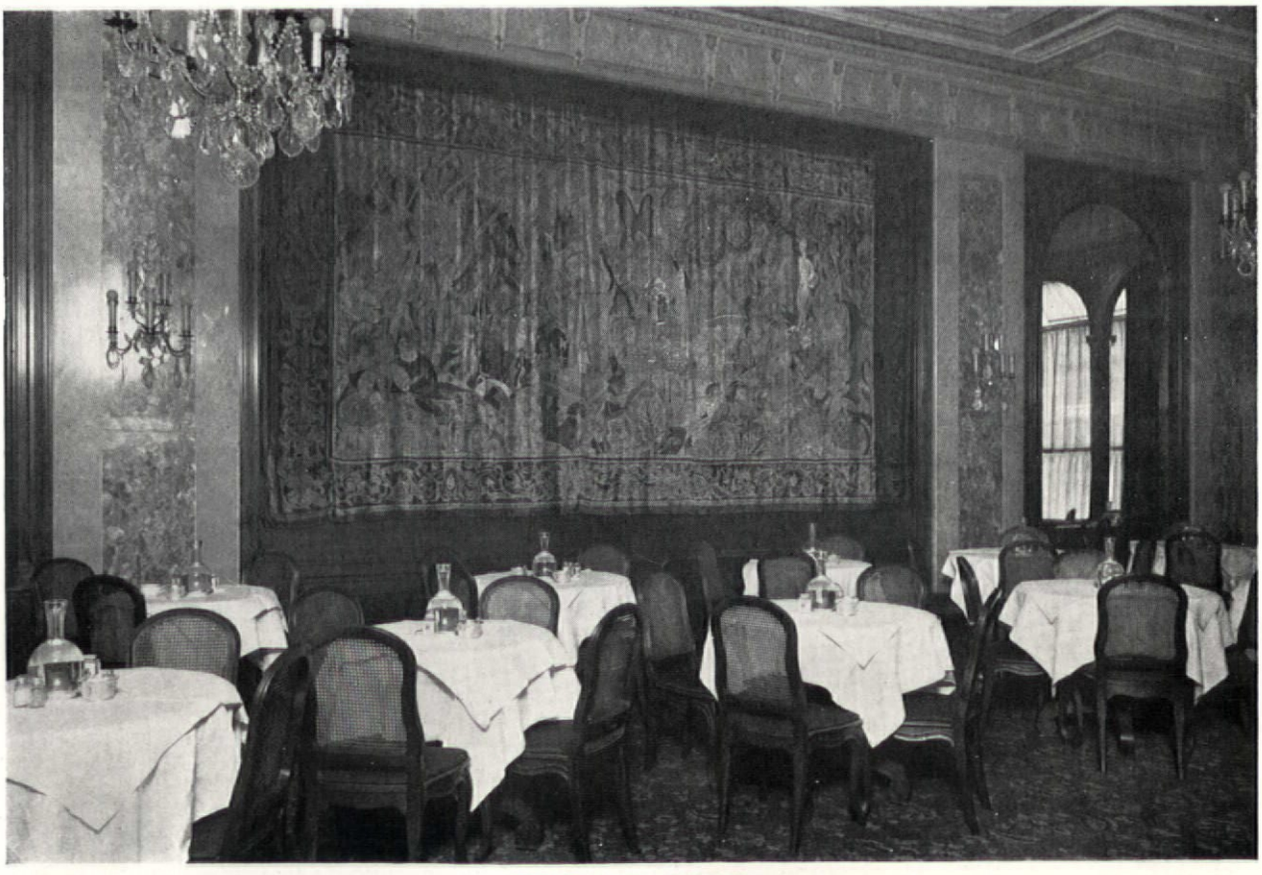
Exterior of a Women's Shop



Main Floor from Entrance



THE MEN'S CAFE



WOMEN'S RESTAURANT
INTERIOR OF MAILLARD'S, MADISON AVENUE, NEW YORK
BUCHMAN & KAHN, ARCHITECTS

great importance, the intensity and color of light are adjusted to the sizes and types of windows. The use of reflectors built in the cabinet work eliminates glare, and the judicious placing of spotlights gives most interesting variations of light and shade in successive displays. Since the intensity of light will be affected by the color of the show window's walls, it is important to determine first the main effect desired, remembering the character of the merchandise. Dresses, for instance, should not compete with their background. Furniture will look best against a neutral tone that will contrast with the richer color of the wood. It is a matter of experience that the orientation of the store on the street bears an important relation to the color of the interior of the window because the glare of light caused by the reflection of buildings in the vicinity can produce difficulties in obtaining a satisfactory window effect.

The doors to the store are among the details that worry the architect as well as the owner. They must not be too heavy to be handled by a woman leading a child. There are possibilities of customers or children being caught by badly placed hardware or by swinging doors. It is always of extreme importance that everything in a store be foolproof—radiators, drinking fountains, elevators, everything that can come into contact with a careless customer, for if anything does happen, the store is responsible. It is for this reason that a firm like Oppenheim Collins & Co., in its stores throughout the country watches minutely the details of its buildings and constantly works to perfect the operation of its sales machinery.



Maillard's; Corner of Women's Restaurant



Maillard's; Entrance to Men's Cafe

In considering the interior arrangement of a particular store, the sales policy will direct whether it is advisable to hide merchandise in its setting or to show everything that can conveniently be laid out so as to tempt the customers. An excellent illustration of these different policies was evident in the arrangement of two large furniture establishments in New York. One specializing in high grade furniture had its floor space divided into rooms which were decorated in different materials and colors. In these rooms selected groups of furniture were carefully placed, surrounded by accessories that lent distinction to the pieces. The second institution built no partitions and showed great quantities of goods so as to impress the customer with an overwhelming assortment of furniture from which to make a selection. Both proprietors are convinced that they are right, and for their own classes of merchandise they are.

The care shown in interior arrangement is always instructive, even though the results are so simple that it is difficult to recognize their artistic merit. A store like that of Oppenheim Collins & Co. in Brooklyn is somewhat of a standard for its owners, in that apart from the general scheme, the details of show windows, floors, lighting and general utilities have proven sufficiently satisfactory to have become a standard to follow in their other buildings. The main floor is of marble, while the space back of the counters, for the comfort of the employes, is of wood. The lighting throughout is indirect, and the

store fixtures are so designed and arranged that at short notice they can be rearranged and readjusted for special sale purposes or other unusual uses.

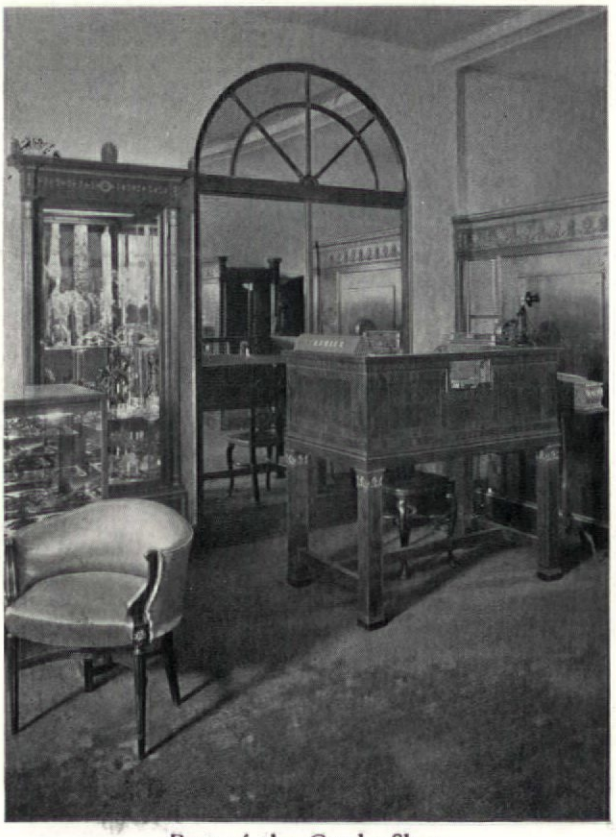
Sometimes a store, becoming an institution, takes itself seriously, and the designer has an unusual opportunity. The Maillard store in New York carries on an old tradition, which made it important to be conservative in the design and in the use of material, but the owners were willing to permit well known craftsmen to coöperate in the work. It is encouraging to discover that it is economically possible to bring excellent craftsmanship into a commercial undertaking so that it may gradually develop a condition when the artist will welcome further opportunity and the store owner see the advantage of such coöperation.

In the Maillard candy shop the counters have been kept close to the walls on either side in order to give adequate space as an approach or corridor to the women's restaurant which is directly back of the shop. The decorations of the entrance to this restaurant, although quite elaborate, form a transition from the simpler treatment of the shop itself to the richly decorated restaurant. An arcade treatment in three arches with finely detailed columns and pilasters forms this entrance, and repeats the arches used for the interior of the restaurant windows. Use of small arches was made in the windows and door openings to give a unity of scale to the entire interior decorative treatment. The walls of this room are divided by panels of two kinds of marble on which ornate lighting fixtures give a note of interest. The principal wall space is decorated with a large tapestry to add color and variety to the decorative treatment. Smaller interior wall panels are filled with arched mirrors to help repeat the general scale of the detail. From the heavily paneled ceiling are suspended elaborate crystal chandeliers to add both elegance and gaiety to the interior design. The floors are covered with heavy carpets in rich colors, and the furnishings are carried out in walnut in a simple manner after the style of Louis XV.

A further variation in design is introduced in the entrance from the women's restaurant to the men's cafe, at the rear of the building. This entrance consists of a three-part opening, a large arch in the center with vertical openings on either side, suggestive of the Palladian motif; heavily embroidered draperies which fill these openings give seclusion to the men's cafe beyond. In this cafe, which has been executed in a simple adaptation of the Elizabethan style, colonnettes and arches have again been introduced to give scale to the large window openings by reducing their apparent sizes. As these windows are the ordinary large glass openings of a typical loft building, all effort to change their scale and character had to be incorporated in the design of the interior. Not only does the arched treatment of the interior of the windows give scale to the design but also the oak paneled walls and the plaster cornices and ceiling mouldings. In this cafe the furnishings are carried out in oak in a solid English style appropriate for a men's cafe. As in the women's restaurant, heavy, deep toned carpets cover the floor.



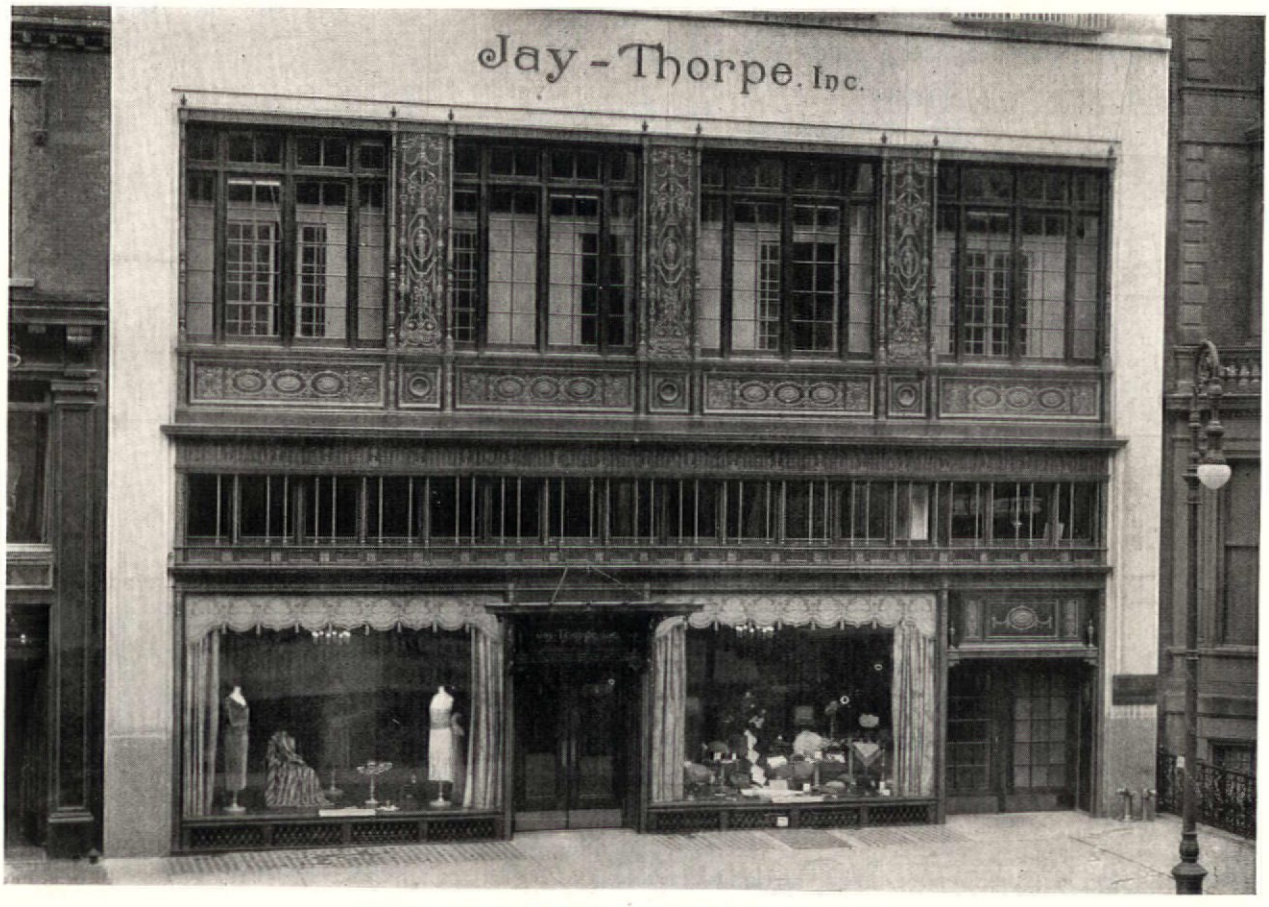
One End of Candy Counter



Part of the Candy Shop



RETAIL STORE FRONT IN PITTSBURGH
BUCHMAN & KAHN, ARCHITECTS



FRONT OF A SPECIALTY SHOP IN NEW YORK
BUCHMAN & KAHN, ARCHITECTS

OPPENHEIM COLLINS & CO. PITTSBURGH

Upper Illustration, Plate 81

Where a retail store has many branches it seems to have become the custom, no matter how numerous or where located those branches may be, to employ a uniform type of architectural design for the entrance facades. Undoubtedly this custom must have commercial value because often a different or simpler design might better suit the local conditions. Although this store of Oppenheim Collins & Co. happens to be located in Pittsburgh, it is almost identical in appearance with their store on West 34th Street, New York. As the design for a large individual store front in two stories, it is interesting as meeting commercial requirements and yet having architectural detail. No shopkeeper could ask for larger or better placed show windows, more ample entrance doors, or a more imposing canopy—which so well serves to display the name of the firm both up and down the street. The height of the show windows above the sidewalk has been carefully considered for the proper display of both large and small articles of merchandise.

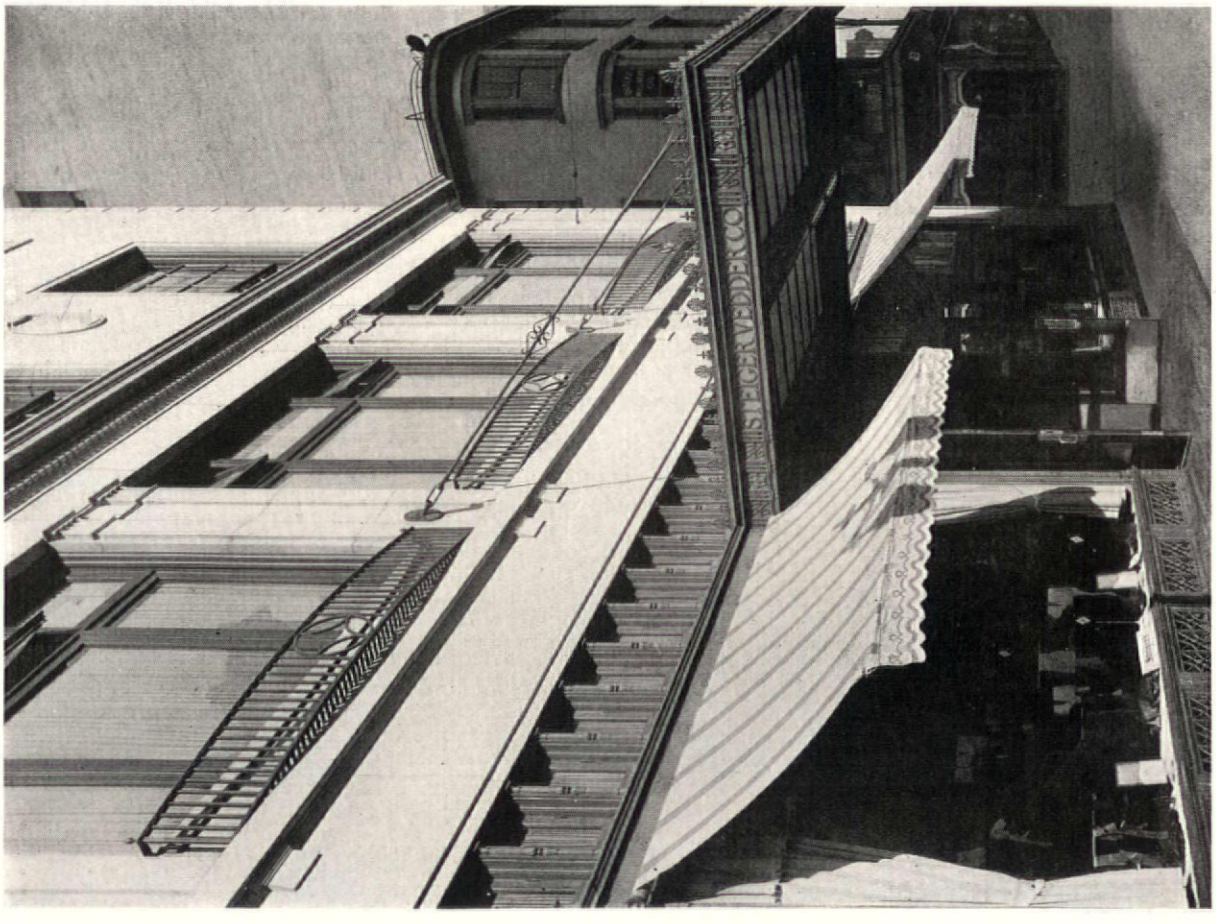
JAY-THORPE, INC., NEW YORK

Lower Illustration, Plate 81

Although enclosed in one large plain stone opening, the facade of the Jay-Thorpe, Inc. shop is really divided into two distinct parts. In the lower half are seen the entrance door and large show windows of the shop itself as well as the entrance to the elevators to the upper floors of the building. Above these essential street motifs is a long glass transom to light the store. The upper half of the design, on account of the use of the interior, which is fitted up for small display rooms, permitted the use of a much smaller scale of detail. Very ornate bronze panels and balusters surmounted by a delicate cornice surround the four windows which are given scale by the introduction of heavy mullions, transoms and muntins, dividing these openings into many panes of glass. The same well studied scale is carried out in the heavier cornice surmounting the lower half of the design, where slender balusters and small glass sashes continue the scale across the transom. As far as commercial requirements have permitted, the same refinement is observable in the details of the entrance door and windows.



SHOW WINDOW FOR LUDWIG BAUMANN & CO., NEW YORK
BUCHMAN & KAHN, ARCHITECTS



DETAIL OF A RETAIL STORE IN HARTFORD
BUCHMAN & KAHN, ARCHITECTS

LUDWIG BAUMANN & CO.
NEW YORK

Upper Illustration, Plate 82

This large, low show window which is designed for the display of furniture is one of a series of similar windows in the new building of Ludwig Baumann & Co. It is shown here as an excellent example of a typical commercial window. Although divided into three divisions, the window necessarily shows no scale but is distinctly the open end of an interior room, protected by glazing from the elements. Any architectural treatment of such an extensive hole in the wall is practically impossible. To indicate any support for the architectural treatment above, it seems preferable in this type of design to frankly show the steel girder which makes possible so spacious a show window.

STEIGER VEDDER CO.
HARTFORD

Lower Illustration, Plate 82

In Hartford is found another interesting example of a well studied store front by Buchman & Kahn, Architects. The building itself is built of limestone in a simple adaptation of the Colonial style, the three upper stories showing well proportioned and well spaced fenestration to which sashes with small panes give scale. Unfortunately, in the two lower stories of the building architectural design had to be subordinated to commercial requirements, so that the usual large show windows and entrance doors with heavy canopies are found. The transom lights with their bronze baluster treatment give a continuous decorative note along both facades of the building. The triple arrangement of the design of the lower story has been repeated on the floor above.



INTERIOR OF CANDY STORE, MAILLARD'S
BUCHMAN & KAHN, ARCHITECTS



ENTRANCE FRONT, MAILLARD'S, NEW YORK
CROSS & CROSS, ARCHITECTS

MAILLARD'S, NEW YORK

Illustrations, Plate 83

This is one of several similar motifs which make up the design of the basement stories of the new building recently erected by Cross & Cross, Architects, on Madison Avenue. This particular bay serves as the front of Maillard's new candy shop and restaurant. A certain feeling of scale has been obtained by dividing this high opening with colonnettes, cornices, mullions, and panels of bronze, carried out simply in a style which suggests that of the brothers Adam. The recessed doorway gives added depth to the show windows on either side and a shadow value not found in surface doorways.

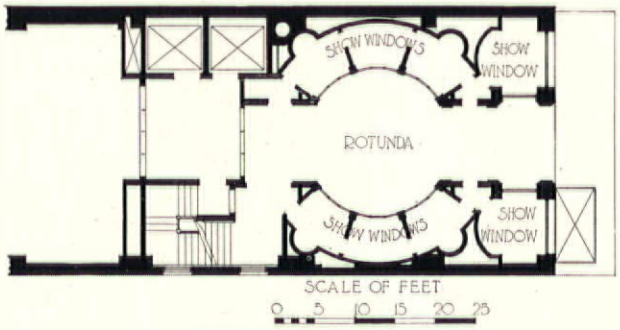


STREET FACADE OF A FIFTH AVENUE SHOP, NEW YORK
HARRY ALLAN JACOBS, ARCHITECT

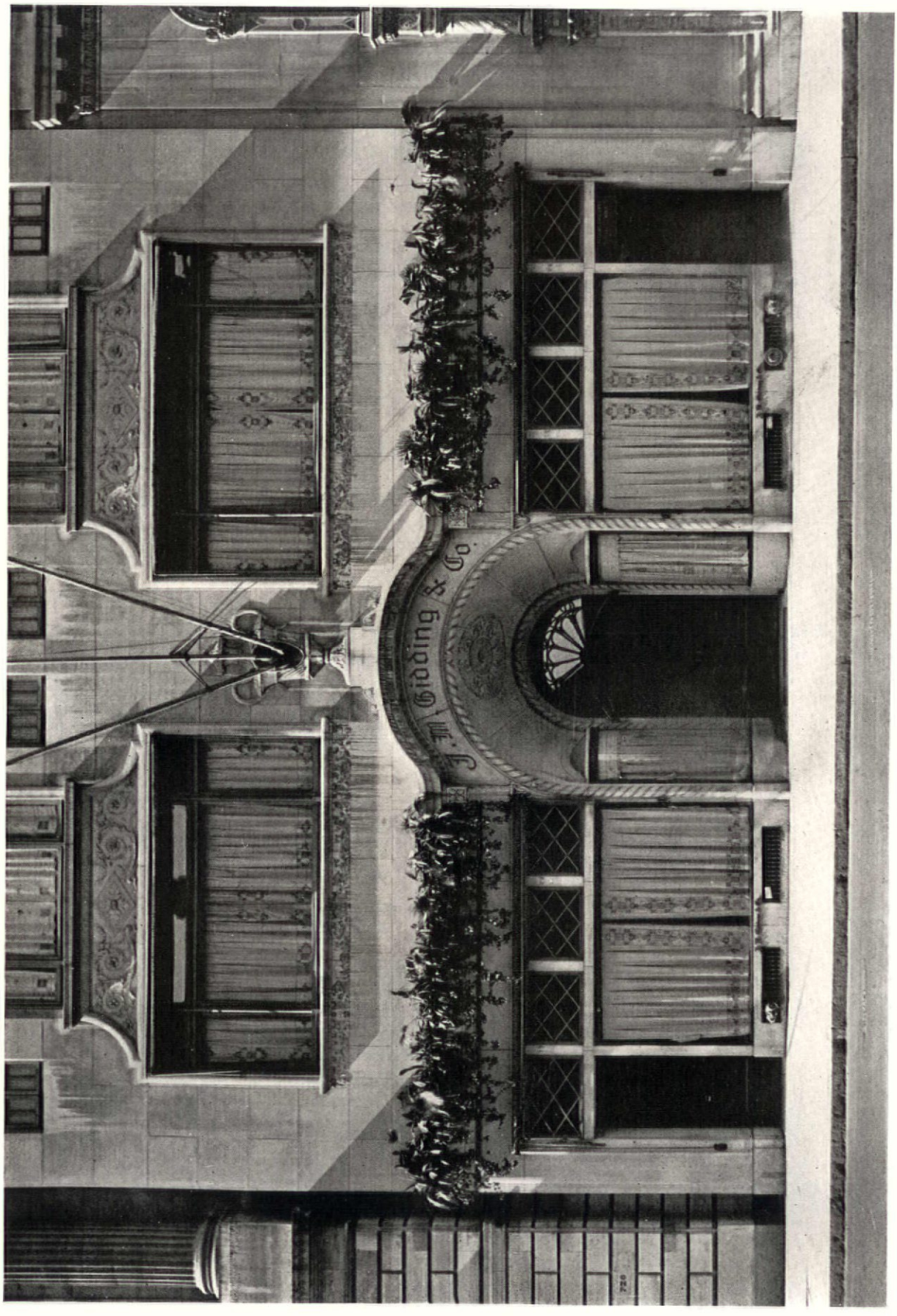
SHOP OF AVEDON & CO., INC.
NEW YORK

Illustration, Plate 84

In the design of the Avedon shop is found an example of the latest type of shop development, the "arcade," which is steadily becoming more and more popular, not only in cities of the East but in the Central and Far West as well. The "arcade type" has many advantages to offer, although few of them have been carried out with such architectural skill as in this shop where even the front show windows are an integral part of the architectural design. From the point of view of commercialism no type of shop front as successful has yet been designed. The would-be purchaser or "window shopper" may enter under the protection of the entrance arch and rotunda to examine, without annoyance from street crowds or solicitous clerks or inclement weather, the latest merchandise shown in the display windows. In addition to the two front windows, within the arched entrance there is a vaulted vestibule lined on either side with show windows. Thus with a comparatively small avenue frontage it becomes possible to provide a number of interior show windows sufficient for making at one time a complete display of the newest goods offered for sale within the store.



FIRST FLOOR PLAN



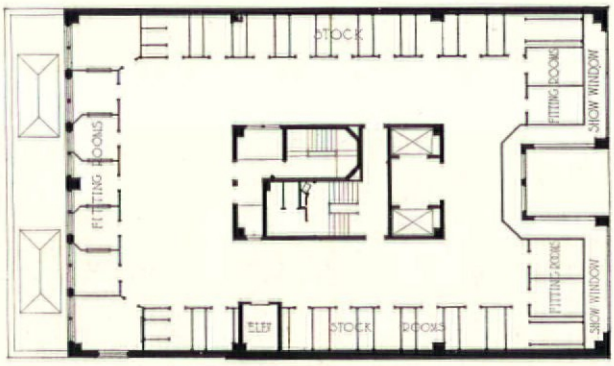
A RECENT STORE FACADE, NEW YORK
SEVERANCE & VAN ALEN, ARCHITECTS

SHOP OF J. M. GIDDING & COMPANY, NEW YORK

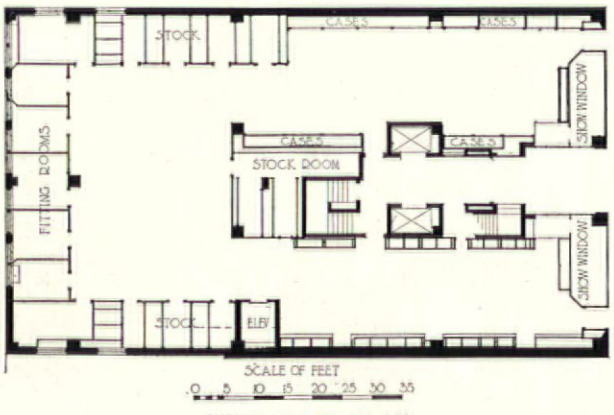
Illustration, Plate 85

Among the interesting shop designs completed within the last two years is that for J. M. Gidding & Company, The exterior shows a spacious recessed and arched entrance containing small show windows on either side. The location of the small side entrance gives balance and symmetry to the elevation of the store front proper. As so often happens in modern store fronts, there is little architectural relation or connection in spirit between the windows of the upper stories and the treatment of the first story. In spite of the lack of architectural unity and cohesion, the facade as a whole is interesting on account of the shape and location of the upper windows and the carefully placed and skillfully executed carved decorations.

The floor plans of the interior, shown here, have been logically worked out to meet the practical requirements of a firm specializing in one class of goods.



SECOND FLOOR PLAN



FIRST FLOOR PLAN



INTERESTING DESIGN FOR A BOOK SHOP
HENRY S. CHURCHILL, ARCHITECT



ENTRANCE DETAIL, HARPER BUILDING, NEW YORK
WARREN & WETMORE, ARCHITECTS

ENTRANCE DETAIL, HARPER BUILDING, NEW YORK

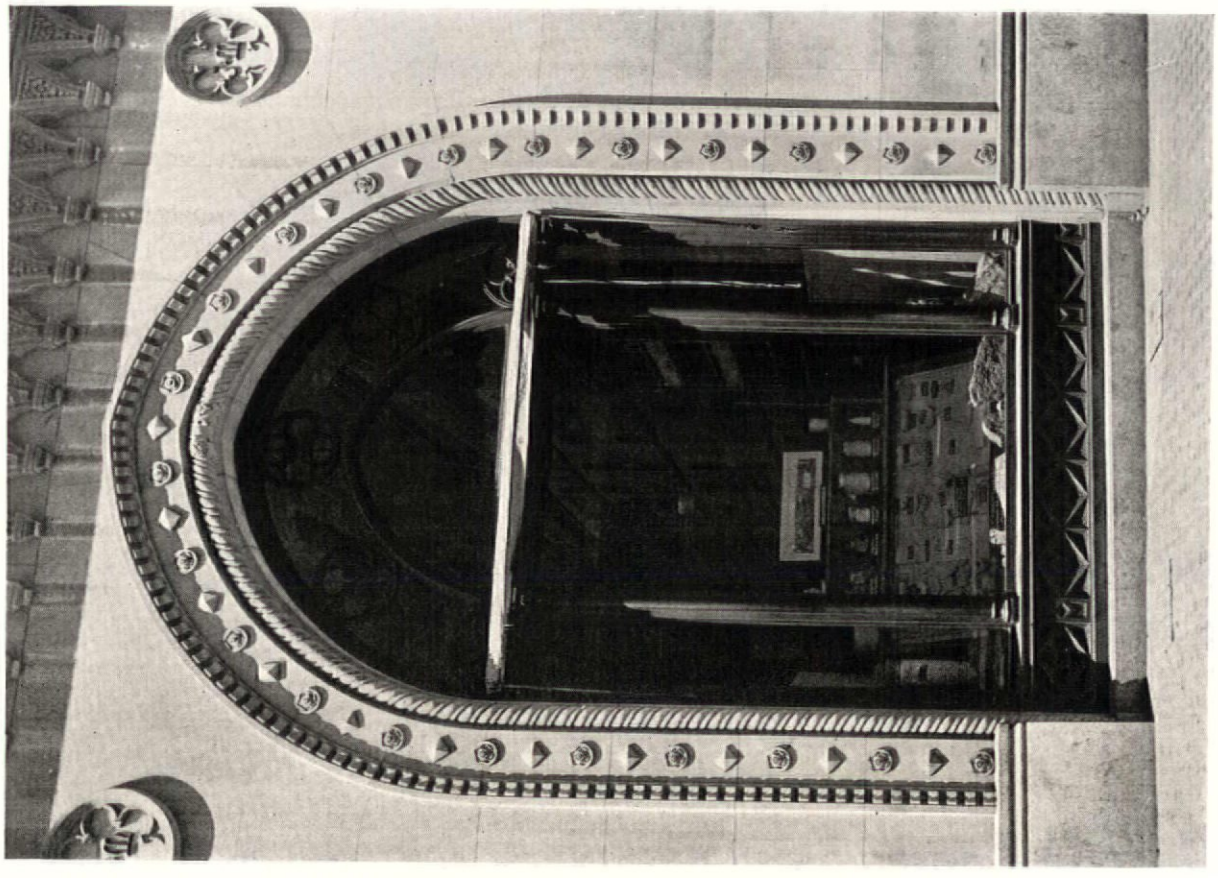
Upper Illustration, Plate 86

On East 33rd Street, Warren & Wetmore have recently completed a commercial building for the use of Harper & Brothers in which simplicity and straightforwardness of design are evident. The detail of the entrance door shown here is a particularly good example of the adaptation of Colonial precedent. The pilasters, pediment, mouldings and panels of this doorway are in excellent scale themselves, but do not seem to agree in either scale or character with the heavy treatment of the long, low show windows, in which horizontal instead of vertical panes of glass have given a strange effect.

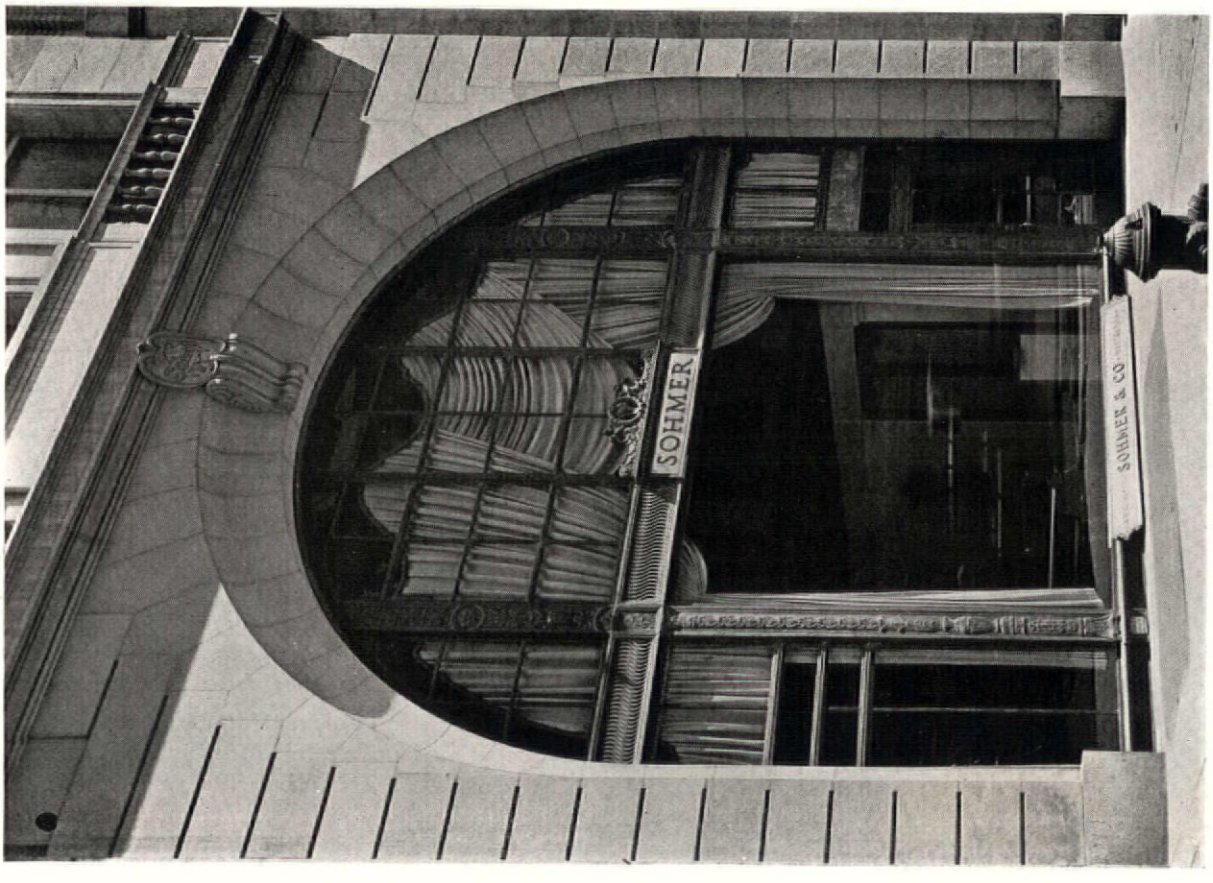
BOOK SHOP OF E. WEYHE NEW YORK

Lower Illustration, Plate 86

It is unfortunate that in a black and white reproduction no idea of color may be obtained, for half of the interest or originality of this bookshop front is due to the strong colors combined. The walls are covered with deep terra cotta colored stucco which is relieved in the trim of the window and door openings by tile in rich blues and yellows. Over the entrance door and lower show window a further decorative effect has been secured by the introduction of medallions of decorative tile. In design the entrance and show windows are carried up into the second story in a somewhat similar treatment, giving an added height and dignity, which combined with the scale derived from the several divisions of each window produces a very original effect.



WINDOW DETAIL, JOHNS-MANVILLE, INC. BUILDING
LUDLOW & PEABODY, ARCHITECTS



RECENT FRONT FOR A PIANO SHOP
RANDOLPH H. ALMIROTY, ARCHITECT

JOHNS-MANVILLE, INC.
NEW YORK

Upper Illustration, Plate 87

This window is one of several which form the motifs of the basement story on the two street facades of the Johns-Manville, Inc. building. It has been selected as an excellent example of the combination of style and scale possible in a shop window. The design has been carried out in an adaptation of the Italian-Byzantine architecture found in Ravenna and many of the towns of northern Italy. The very character of this style has given an opportunity to use detail in small scale, which scale has been repeated in the unusually well designed bronze detail of the window frame itself. This detail consists in simple Gothic colonnettes supporting a delicate cornice upon which rests the transom of the window. The bronze framework of this transom sash continues the line of the colonnettes and introduces as decorative features quatrefoil designs in open bronzework.

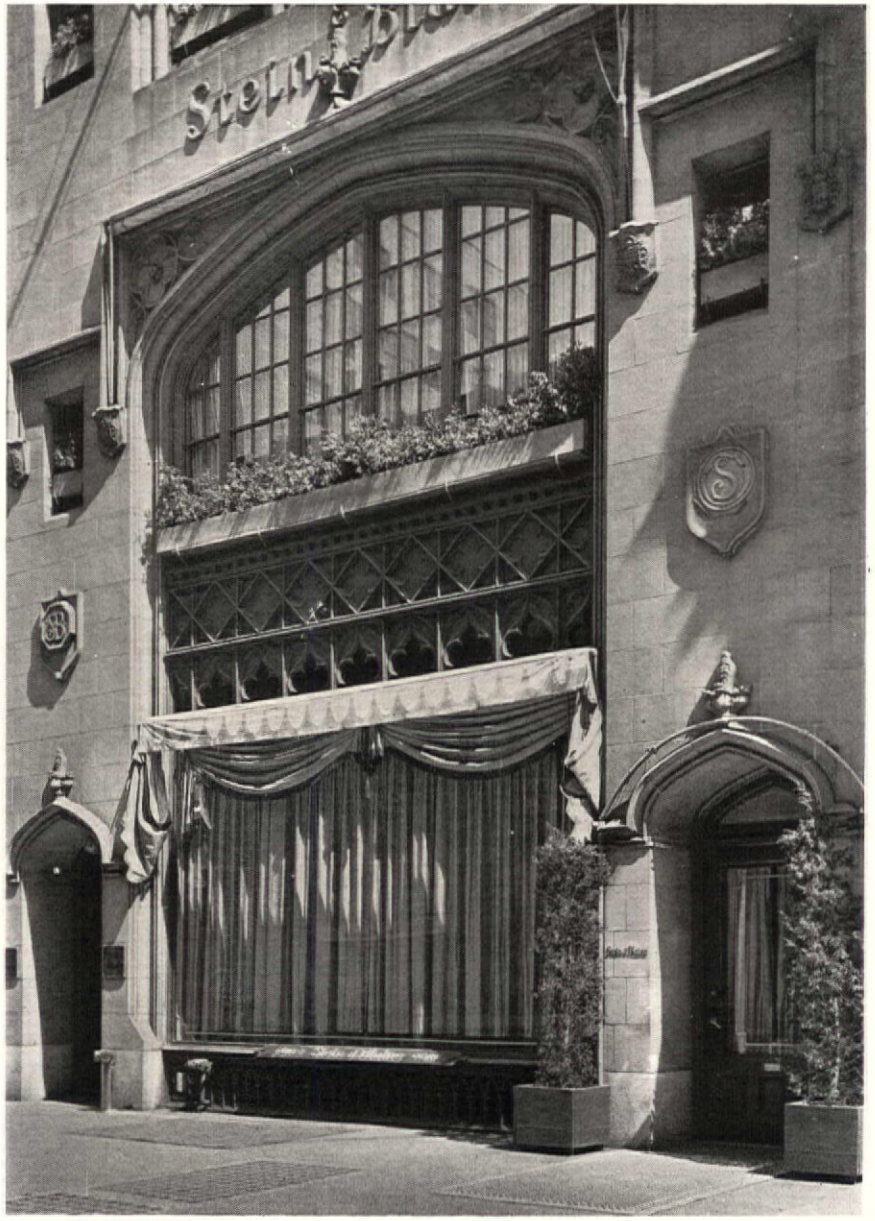
SHOP OF SOHMER & CO.
NEW YORK

Lower Illustration, Plate 87

This shop front affords an interesting study in the relation of architectural design to requirements. To show off pianos to their full advantage, commercial needs seem to demand that there shall be at least one large show window of plate glass, so in this arrangement we find a stone arch enframement suggestive of the latest period of Italian Renaissance. Bronze detail, executed with extreme delicacy, gives successful scale to this large opening and forms a perfect setting for a single show window. Not only do the bronze panels and muntins of the upper half of the window add interest to the entire design, but the window hangings themselves give a pleasing expression of unity and coherence to the entire building.



A SHOP FRONT IN THE RENAISSANCE STYLE
HARRY ALLAN JACOBS, ARCHITECT



EXTERIOR OF NEW STORE FOR STEIN & BLAINE
RENWICK, ASPINWALL & TUCKER, ARCHITECTS

NEW STORE FOR STEIN & BLAINE
NEW YORK

Upper Illustration, Plate 88

Executed as a simple adaptation of the French style of Francis I, this well studied design shows an interesting balance in detail and appreciation of scale. The center motif is a single high, four-centered arched opening in which a combination of small window panes in the upper portion and bronze panels in quatrefoil design across the center of the opening give a definite scale to the entire design. In the lower half of this opening, commercial requirements necessitated a single display window, in which the many folds of the draperies repeat the small scale of the details above.

HARDMAN, PECK & CO.
NEW YORK

Lower Illustration, Plate 88

Here is a design in two parts in which unfortunately there is little relation between the upper and lower stories. But the design as a whole shows a degree of study for an architectural effect which makes it worthy of consideration. The lower half is divided into a single show window sufficiently low and large for the display of pianos and a single entrance with elaborate carved ornamentation above. A long horizontal panel containing the name of the firm helps to tie together the design of the lower half of the facade. The three well proportioned arches which form the second story arcade make an interesting architectural motif replete with possibilities for use as a shop front design. Even here, although located on the second floor, a large show window is introduced a few feet behind the arcade. This treatment has recently been carried out in the heavier style of the Spanish Renaissance in some of the newer shops in Los Angeles.

Recent Shop Fronts in New England

By DANA SOMES

OUR *maitresse jalouse*, Architecture, is fast becoming the handmaiden of the shopkeepers, and with quickening pulse we note that she is more and more being made to serve the ends of Advertising,—goddess from the machine of business. The shopkeepers are seeing her value, and in these days of scarcity of domestic labor are becoming willing to pay the wages of this humble handmaiden. So in the larger cities, as the value of well designed shop fronts is becoming more appreciated, little oases in a desert of plate glass and cast iron are beginning to dot the streets with better shop facades.

It is also being recognized that all store front problems are not alike and that the functions of the store window may be widely dissimilar. Paradoxical as it may seem, the store window, with some exceptions, is no longer intended to serve as a real window. Occasionally the entire interior of a shop may be treated as show space, and under such circumstances the front does become window *per se*, through which the passer-by may glimpse a view of the whole interior. This is well illustrated in the case of the Thomas F. Galvin, Inc. shop in Copley Square, Boston, designed by Elsie Cobb Wilson, where a charming vista of flowers and plants extending to the rear of the shop is disclosed. Usually, however, the function of the modern store window is to serve as a display place for wares for advertising purposes, and in such cases it is generally cut off by more or less opaque walls from the rest of the shop.



Exterior of Flower Shop, Copley Square, Boston
Designed by Elsie Cobb Wilson

As a means of lighting, the shop window has ceased to function. The treatment of this sort of window may be roughly classified into three different types: The first type of treatment is that which by its general character identifies and advertises the store without placing particular emphasis on display. In this sort of design the architect may exercise considerable freedom. He may introduce orders and pilasters and small panes to his heart's content and still leave the proprietor confident that the front will serve its purpose and attract attention from afar. For the most part such types seem to be confined to candy shops, tea rooms and the like. Considerations of display being secondary, it follows that these fronts are rather shallow, and the entrances are placed as near the sidewalk as is conveniently possible. New England cities and towns are favored by a number of good examples of this sort, of which a few of the most recent are here illustrated. For example, the front of Pollard's optical supply shop on Newbury Street, Boston, is of a character which unmistakably expresses the use of this shop and has been developed in a pleasing scale which focuses attention primarily to the nature of the business rather than to a prolonged inspection of the window display. In view of the fact that in this type of business an extended display is unnecessary, the designer has sought for architectural character rather than for the brilliantly lighted arcaded front which might be required for other types of occupancy. A similar example is shown in the illustration of Sargent's candy shop in Providence on page 250.

The second general type is the most common and the hardest problem for the architect, and presents the greatest opportunity for a contest with the owner, for he will begrudge the use of a fraction of an inch for anything but plate glass, and unfortunately his attitude is absolutely reasonable. In this type the primary consideration is to provide the show window intended for the display of a large assortment of miscellaneous small objects without any particular attempt at grouping and often with no relation one to another. The proprietor justly claims that the number of objects shown bears direct ratio to the advertising obtained, and hence he must have the maximum unobstructed space. If the architect can squeeze out a few inches on each end of the front to satisfy his craving for some apparent support for several stories of solid masonry above, he may count himself lucky. Fortunately for him, however, it is difficult to attract the passing attention to a greater height than 9 or 10 feet, and above the transom line there is some opportunity to bring the plate glass below into some semblance of human scale and structural reasonableness. This has been done admirably in the Carl H. Skinner jewelry shop on Boylston Street, Boston, by Shepard & Stearns,



Optical Supply Shop, Newbury Street, Boston
Henry Bailey Alden, Architect



Scale Given by Well Designed Transoms
Shepard & Stearns, Architects

where black leaded glass with silver rosettes has an admirable sparkle, serving to emphasize the display. An equally effective recent example is the shoe shop by Strickland, Blodgett & Law, designed for "Queen Quality" on Tremont Street. Here much of the trouble from reflection has been cleverly overcome by making the front slightly concave. In the block on Charles Street a simple attempt has been made to bring the shops into scale with the rest of the building by colonnettes and small panes above the transom, small panes being used at windows above.

The third type of treatment is that in which each individual show window may be considered as a framed picture to hold one or two large objects—manikins, automobiles, pianos, or what not. It is in this type that the architect has unlimited opportunities both in plan and elevation to exercise his ingenuity, and yet, with the exception of a few New York examples, the possibilities have barely begun to be developed. It is usual in this problem to devote a deep area of the front of the store to show space, with the result that the entrance door is recessed a long way back from the street and flanked by windows on either side. In the past these windows have been entirely of plate glass, and in consequence the unframed picture within has floated off into space, failing to attract the maximum attention. In the future such windows will have well defined frames for each object or group of objects, composed of architectural features or at least drapery. In such cases the approach is flanked as in an art museum by a series of pictures, each complete in itself and each leaving a definite impression on the mind. This idea is usually at first not within the conception of the proprietor of the store, but a little visual demonstration with framed and unframed pictures will usually convince him of its value. A further development of this idea is the setting of kiosk-like showcases in the midst of the entranceway, housing perhaps a single gown manikin visible from all sides. Of course, the practical effect of this deep sort of entrance is to greatly increase the linear footage of show front, and the plan may legitimately become labyrinthine with this object in view. In Boston there are few examples of this type as compared with other cities. The Dorothy Dodd Shoe Co. store shows a successful treatment of the deep entrance, although because of their use for display of small objects, the windows are not framed individually.



Facade of Candy Shop, Providence
Strickland, Blodgett & Law, Architects

Bearing in mind the pictorial quality of such windows, careful attention should be paid to the back wall of the window in search of color and texture which will serve as effective backgrounds for its

ever-changing display. With the recent development of texture paints, many interesting and inexpensive wall surfaces are now used in place of the conventional wood paneling. Often in gown shops or furniture stores the entire space is treated as the interior of a room and furnished as such,—the envious passer-by perhaps beholding an *intime* picture of family life at the breakfast table as it might become by the use of the "One Perfect Dining Room Set."

The discussion of the deep entrance leads us into the subject of the entrance door. In the normal 25- or 30-foot front, should there be a single entrance or side entrances? Each problem being different, it is difficult to lay down arbitrary rules, but in the majority of cases the single central entrance would seem to be the most desirable. Shoppers, like other human beings, are creatures of habit, and it has been established that the counter space on the right-hand side of the entrance for the first 20 feet is astonishingly more frequented than any other part of the store. This being the case, an entrance door at the right-hand side of the shop crowds this most valuable space. On the other hand, the left-hand entrance throws the customers toward the back wall of the show window and blocks the circulation of the emerging purchasers. In any case, this problem is determined largely by the character of the shop and the methods of sale. We need have considerably less worry over the opportunities for ample circulation for the occasional purchaser in a piano store than for the crowd of a "5 and 10."

Perhaps one of the most harrowing tortures that the architect has to experience is that of seeing his thoroughly satisfying facade, some weeks after its completion, blossom out with all manner of heterogeneous signs hung in sketchy disregard of cornices, entablatures and the like. The architect's guardianship terminated, the sign salesman has grabbed the owner, and "scientific salesmanship" has resulted in signs—red, green, blue, gold, silver and brass, not to mention the animated electric. The only reasonable, sure way of combating this menace is to provide amply in the original design for all necessary signs both by day and by night, and in the preliminary sketch season gently to convince the proprietor that his name legibly inscribed once is just as effective as if repeated 35 times in as many square feet of space. Having done this, the designer must resign himself to the almost inevitable additions. It follows that it is usually desirable to provide for lighting the signs effectively. This is usually best accomplished by flood-lighting from concealed lights in the cornice soffit. Often hanging brackets and lanterns can be used as attractive features of the design, particularly if they suggest the use to which the store is put. The lighting of the



Building Containing Shops and Apartments, Charles Street, Boston
Dana Somes, Architect

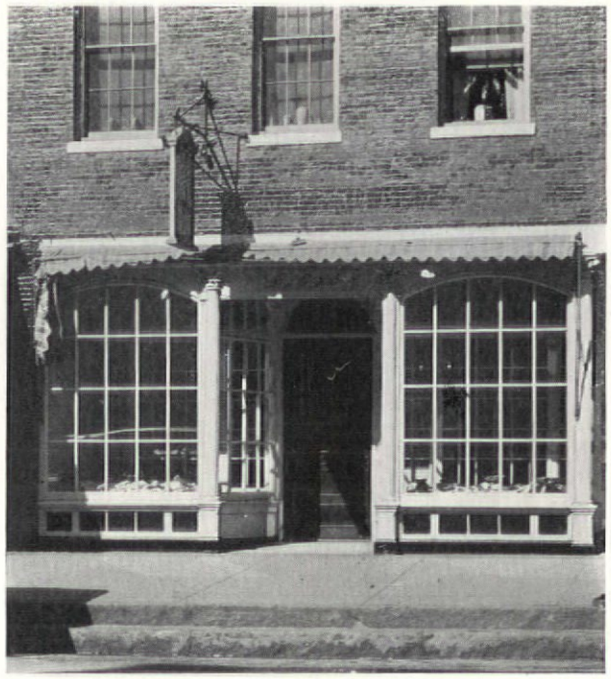


A Slightly Concave Front, Tremont Street, Boston
Strickland, Blodgett & Law, Architects

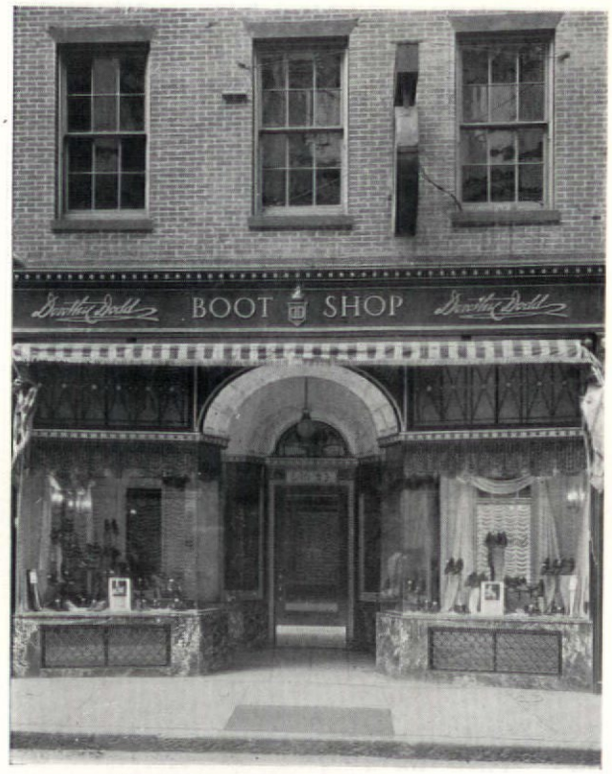
show windows is most important and is usually best accomplished by flood-lighting from behind the transom or jambs. As an exception to this method, the shaded hanging lamps in the Skinner shop, throwing all the light downward on the bits of jewelry below, are most effective and useful.

In their interior lighting, shops seem to be coming more and more to the use of artificial light at all hours. Probably this is due principally to the fact that the show windows have now cut off most of the light from the front. However, where these windows are not too deep, it has become generally customary to use various kinds of prismatic glass above the transoms to throw the light over the tops of the windows into the store. This is worth while not only for the light but for the opportunity it gives for a little variety in the design of even the simplest front, an opportunity which is generally limited at best.

We may well be encouraged by the attention given to this subject among the shopkeepers, and we may look in the future for more and more interesting developments in this comparatively new field, particularly if architects will bear in mind that owners are paying a large percentage of their rent for frontage and that the function of every square inch of such frontage is to advertise the goods within and not to serve as a screen on which the architect may display his entire repertoire of technical knowledge. The possibilities for original ideas of treatment are unlimited and as yet almost entirely undeveloped. The problem is not unlike that of the theater stage. We have only to contrast the stage-set of a decade ago with that of the present to realize its tremendous development under the inspiration of trained men. The creative imagination inherent in every architect can carry the display value of the shop in every way far beyond the point where shopkeepers and advertising men are now floundering.



Well Designed and of Excellent Scale
Strickland, Blodgett & Law, Architects



"Deep Entrance" Front from Street
Strickland, Blodgett & Law, Architects



Effective Arrangement of Space in Vestibule
Note the Extent of Show Windows

Two Specialty Shops in Cleveland

WHERE A PERSONAL DESIGN WAS PERSONALLY SUPERVISED

By CARL W. BROEMEL

COÖPERATION is essential to every successful enterprise, whether it be building or business. For an architect to achieve success in any building he may undertake to design and construct he needs, first, the complete confidence and enthusiastic assistance of his client and, second, the hearty coöperation and intelligent support of his contractor. No matter how much time an architect may spend in his drafting room upon his drawings, if they are not intelligently and consistently carried out by the contractor his time in creating his building on paper has been wasted. Enthusiasm, like cheerfulness, is a contagious element of personal expression; it reproduces itself in all who come under its magnetic influence.

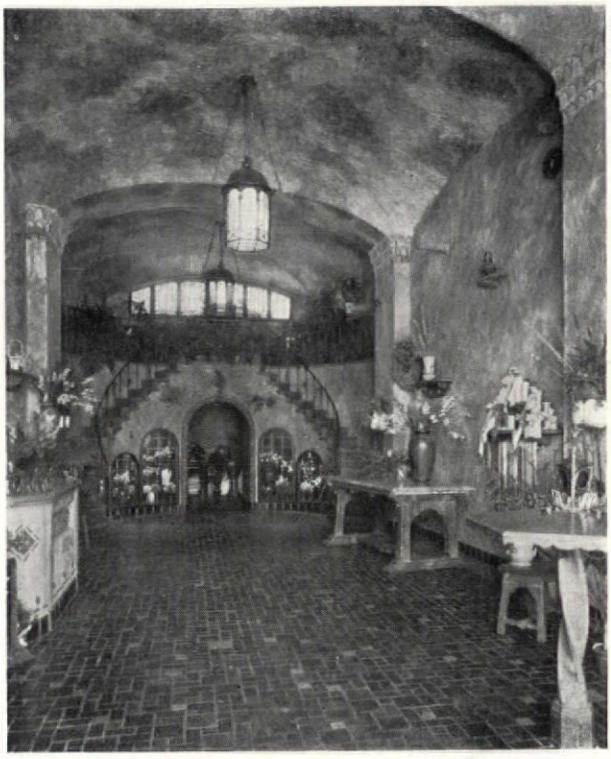


Entrance, Jones-Russell Company Flower Shop
Carl W. Broemel, Architect

Enthusiastic coöperation between architect and craftsmen has made possible the artistic success of these two unusual shops, one a flower shop for the Jones-Russell Company, and the other a shop for the Mac Diarmid Candy Company, where have been demonstrated the theories that it is possible to interpret architecture in an artistic manner, and to increase the profits of business by housing it in attractive surroundings. In other words, it is good business to build a beautiful store, interpreting architecture from an artist's point of view. Personality plays an important part in architecture, quite as much as in sculpture or painting. But personality in design to be successful should be followed by the personal supervision of the designer in the execution of his design, whether he be architect or artist. Although the artist's viewpoint may be fundamentally different from that of the trained architect, the ultimate purpose of both is to create beauty. No design of the architect can be considered a perfect piece of architecture if it does not combine beauty with practical planning.

The side lights concerning the flower store and the candy shop are really of more interest than a description, inasmuch as the work delivers its own message. For instance, that a shoemaker should attempt to design a beautiful interior is hardly fair to himself or to the owner; that an architect should do so is both fair and natural, but that an artist with a meager experience but great enthusiasm for such work should do so ought to be not only possible but a natural endeavor. For, as an artist, he will endeavor to be individual, and, unhampered by an architectural training, he is quite certain to attack the problem from an entirely different angle. So much for the designer, but much more depends on the clients, which we will make brief by saying that in these two cases they were the best of fellows, anxious that their stores be a great success. Before starting the designing of the flower store, shops in several large cities were investigated, and it was astonishing to find not only mediocrity in the stores themselves but also an utter lack of real ideas, combined not infrequently with poor planning. It seemed that the people who sold flowers were entirely unaware of the beautiful commodity they were handling and had all settled down in a rut, building stereotyped stores and laying much stress on white enameled woodwork and German silver. In short, the setting for an outdoor product, such as flowers, was wholly hard and artificial, having no relation whatever to nature's most exquisite creation. It seemed that from the time of the first conference on this flower shop in Cleveland, the idea as it finally stands was resting in the back of the architect's mind in sufficiently tangible form, and that almost from the beginning the main idea was established, and into it, of course, went all the enthusiasm of a novice, fancy free and unfettered by style or precedent. He could find nowhere an appropriate style other than perhaps the Persian and Spanish, and upon investigation he found that these two styles of architecture are largely influenced by semi-outdoor life and usually act as a natural background for flowers and shrubs. They seemed especially suited to the purpose.

If one can trace any influence in the design of the



View From the Entrance

Jones-Russell Company flower store, it is from these two types of architecture and the drawings of Edmond Dulac. This was, of course, but half, and in the task of planning and adapting these ideas the architect put the cart before the horse by arriving at his idea first and adjusting the practical needs to it afterwards. Surely, not so bad either, to climb the pink cloud and then view the situation and its requirements from a lofty viewpoint.

The dimensions of the store were 18 feet in width, the same in height, and 60 feet long. With this space the architect was given a free hand, the only requirement being a specified demand for a good display refrigerator for cut flowers, and a mezzanine with an attractive stairway. The provision of either of these two things was not hard, but the two together, at first, seemed impossible, owing to the narrowness of the store. In the way it was finally worked out, the solving of the stairway problem immediately brought about a happy solution of that of the refrigerator. However, it placed the refrigerator in a precarious position under the stairway, which difficulty was overcome by suspending the stairway into the space below, thus allowing for a baffle wall of equal height to follow the curve of the mezzanine, which gives the hot air an equal distance to travel. This, it is believed, is the reason for the unusual success of this refrigerator. The system of refrigerating employed is the direct expansion ammonia with brine holdover tanks, the machine for which is installed in the basement, while the brine tanks are in back of the baffle wall. This baffle also forms an attractive background for the flowers, for instead of being of the customary mirrors, it is of black tile 10 inches square with wrought iron inserts literally creeping out of the joints at intervals, from which are suspended vessels for orchids, etc. Inasmuch as the florist's refrigerator is usually the product of an ice engineer, and a white enameled affair but one step better than that used for storing meat, one will recognize its unusual character.

The first sensation upon entering the store is like that of entering a garden. The dark chocolate colored tile floor with its variegated inserts resembles the rich earth, while here and there warm lights glow behind ferns and plants. Nothing startles, while everything pleases, and at every turn one finds delightful surprises, maintaining interest through each succeeding visit. The furnishings are not like those of a store, with the exception of the cash register. There are no counters or show cases, but on the walls are many shelves of different lengths and designs, arranged as an artist would plan a composition, with no attempt at symmetry but much care for artistic grouping and placing. The walls and vaulted ceiling are of rough plaster; the ceiling, in tones of blue, green and tan, is darker than the walls which are warmer in various shades of siena, gray and lavender. The walls and ceiling, which were treated in transparent fresco directly on the wet plaster, received the personal supervision of the architect, and



Curving Stairway to Mezzanine

the decorating was done simultaneously with the completion of the plastering. This is really the proper way of handling rough plaster walls. Furthermore, it is more durable and washable than oil paint, costs less, and as the process is one with that of plastering, no time is lost waiting for the plaster to dry, as the wet plaster receives but one immediate application. The work, however, must be done by an artist, as it requires spontaneous and artistic application of the colors. Most of the woodwork, which is all adz-finished oak, is carved in some form or other. The wrought iron is perhaps the best that can be seen in Cleveland. The cashier's desk and the work table, also the card desk, invite the visitor's immediate attention upon entering, the latter being a solid piece of oak carved into a twisted column, something like a mushroom, with a deep red, glowing lantern surmounting the top. Nothing has been slighted, from the outside to the rear of this store, and every detail seems to find its logical relation to the whole.

The MacDiarmid candy store is like the flower store in one respect only, that it is a fitting place for candy, just as the flower store is designed as a background for flowers. This store is almost next door to the other, but it is much smaller in length, and has an irregular depth. The interior has been confined to practically a cube of 18 feet in width, length



Desk for the Cashier



Toned Plaster Walls; Floor of Tiles; Woodwork, Adz-Finished Oak

and height. However, the rear of the store in reality runs at an angle, starting immediately back of the false door at the right and giving a depth of some 10 feet on the left sufficient, happily, for a stairway to the basement. In the main this interior is more like a jewel box, smaller but much finer and more elegantly fitted than the flower store. It seems a perfect setting for attractive boxes of bonbons, and this was constantly kept foremost in mind. In this shop again he was able to work fancy free. Such license, perhaps, leads to a certain lack of style, but withal a charming freshness and originality can be attained.

Upon entering the candy store one is immediately in the middle of the shop area, which has been confined to a horseshoe plan. The general color scheme is subdued in tone, the walls being a modified rough plaster in an old ivory shading toward a darker and colder tint as it reaches the intersections. The ceiling is several shades darker and more of a lavender cast, with a purple and gold glazed hollow cove moulding. Within this panel is a group of smaller panels, while centered down the middle are three low reliefs of fruits and flowers in rich color. The cornice, which by the way does not return around the room, is hand-modeled, not run. It has very little color other than a smoky warm gray, blending softly from the walls into the darker tint of the ceiling. The focal center of the store is the cabinet at the curve of the horseshoe, above which is a shallow shell decorated in low toned colors with a gold "M" surrounded by the Scotch thistle modeled in relief.

Directly in front of this ornamental cabinet, sur-

mounted on a pedestal, is a magnificent bronze, the work of Lucy Perkins Ripley. Much could be said on the merits of this dignified figure, and much more on the fact that a candy store has seen fit to favor art in commercial life to this degree. The woodwork of the shop is its main attraction, and here again one feels the luxury and richness which seem to harmonize so well with the odor of chocolate. It is of American walnut with some Circassian, and is a magnificent piece of craftsmanship, as it is rich in carving, curved panels and drawers, circular and curved mouldings, with ebony and rosewood inlays and applications. The glass and wrought iron are exquisite in workmanship, the former being quite free in cut form. The floor is not slighted, but is made up of an interesting pattern of golden travertine and special tile in soft gray-blue and ivory with black inserts and edgings.



View from Entrance, MacDiarmid Candy Store
Old Ivory Walls; Woodwork of Walnut

Two features to be noted are the openings in the lower part of the counter and the four cabinets on the wall. These little display windows are accessible from the rear and have flooring of ebony and walnut. On the wall cabinets can be found applications of carved rosewood and walnut, some of it cleverly attached to the surfaces of the glass. The lighting fixtures are equal to the surroundings, and are made of pewter, polychromed in gold and red.

These two stores teach one lesson clearly—that the commercial type of better store interior will vanish, and that the artist or architect will henceforth play a large part in the preliminary arrangement of stores, for as Frank Brangwyn claims, when artists give their minds to practical affairs, they show a range of common sense that men of trade cannot surpass.



Counter, Showcases and Wall Decorations, MacDiarmid Candy Store
Carl W. Broemel, Architect

Old English Shop Fronts

By JOHN TAYLOR BOYD, JR.

THE retail shop front is the legitimate child of Main Street. Its character is much the same throughout the country,—usually a small, intimate, and unconventional bit of architecture, its scale very small and domestic in character in contrast to the big proportions of the monumental business buildings in the large cities. In only a very few fashionable shopping centers, such as the Fifth Avenue district of New York, does the small shop express that air of luxurious worldliness which distinguishes the finest of the Paris shops in the neighborhood of the *Rue de la Paix*.

Since the shop front is really a type of the architecture of the small town, the designer of today will find much inspiration in historic English architecture, which is so preëminently an architecture of the small town, domestic in character and scale. He will find the type of small shop front fully developed by the time of the eighteenth century, when there were built many examples of the charming and beautifully rendered symbols of the ideal. They form a tradition which still has vitality today. Its modern significance is not a matter of perfunctory copying, but is founded on more solid ground, namely—imaginative design, perfection of scale, and the direct, common sense use of materials, on the architectural side; and on the practical side, the similar character of the small shop to those of today, with the same structural essentials. It may, therefore, be worth while to trace briefly some of these points of resemblance between old shops and new.

Although the English shop front evidently first became widespread in the eighteenth century, an earlier ancestry is suggested in the mediæval town houses, such as may occasionally be seen in England, notably a fine old row along one of the streets of Chester. The houses are four or five stories high, generally of half-timber construction, located on narrow, deep lots—a custom which still obtains—and fronting on narrow streets, often no wider than alleys. This ancient half-timber construction easily allows the introduction of the shop front. The framed timber skeleton, with its heavy supports spaced wide, the intervals filled with large windows having light enframements and slender mullions or with panels of brick or clay and rushes plastered with stucco—is this structure so different from our buildings of today, except that we now use iron in place of oak, and are more likely (though not certain) to encase the structure with various materials



Part of the Facade of a Shop at Lewes

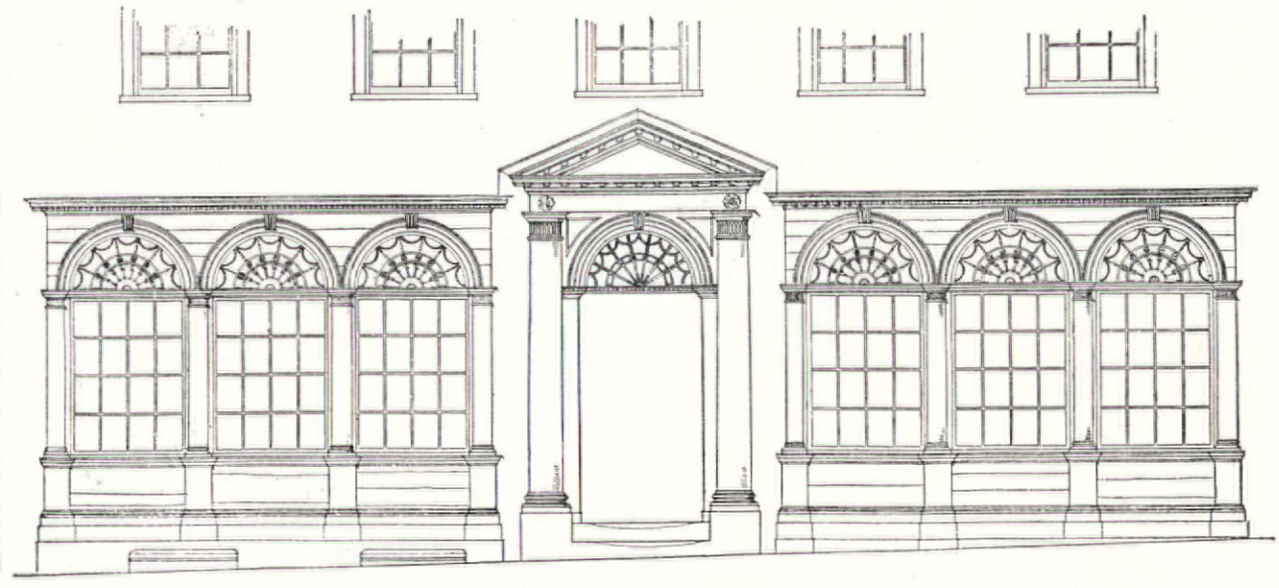


A Corner Shop at Cirencester

of finish, in metals, masonry, ashlar or marble veneer? However, notwithstanding this favorable architectural setting, it is likely that the turbulent social conditions of the Gothic towns, whose narrow streets were badly paved and poorly policed, deterred the burghers and craftsmen from displaying their wares too freely on the ground floors of their stores and workshops. But as the towns grew more settled, and were better planned, with wide streets, well paved and having sidewalks, the shop front came into its own under architectural and business conditions similar to those which are obtaining today.

The modern shop front is more varied than the older English prototype, because we have more kinds of shops in order to sell the greater variety of goods furnished by our material civilization. For this reason the English type is strictly defined, but nevertheless one allowing great originality and freedom of design within the type. Usually it is a simple flat screen of small glass panes thrown across the entire front of the building on the ground floor, often with a center door, the screen enframed with a slender architectural motif of wood. In some cases the doorway is merely an opening in the screen of panes, and, with glazed panels and transom above and slender strips of pilasters or mullions, is designed to break up the expanse of glass as little as possible. In other cases the doorway becomes a distinct feature of the design, with conventional architectural treatment, separate from the show windows on either side. Although the door was usually in the same plane as the screen of glass, sometimes it was recessed forming a tiny front vestibule, as in the case of the shop at Guilford, where the heavy carving around the arch continued as a broad band under the show windows, gives a design of unusual breadth and richness.

These illustrations show a variety of architectural treatments of the type, ranging from extremely simple designs—hardly architectural at all except for their fine proportions and scale—to the more sophisticated design of the shop at Lewes. In this latter the triple division into architectural doorway and flanking show windows, separated by wall piers, the tying together of the three divisions by the use of seven arches of approximately equal size and proportions and by transoms of the same decorative pattern, all characterize a highly coördinated architectural design. Another shop, at Cirencester, has a fine emphasis of the show windows by reason of the enframement of paired columns and entablature, as compared with the shop at Lewes. This emphasis



Detailed Drawing of Shop Front at Lewes

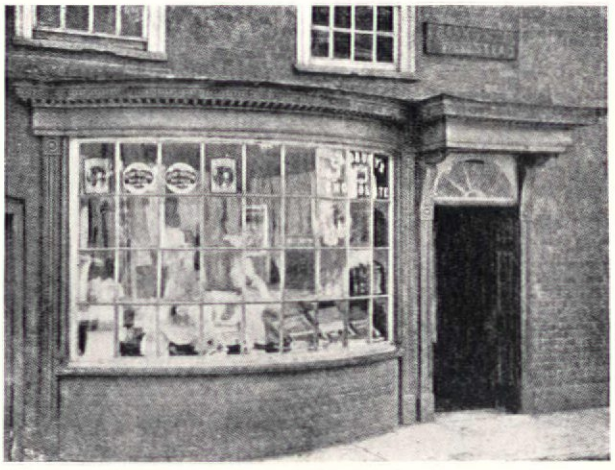
of the display window would appeal to the salesman.

Midway between these highly complex designs and the extreme simplicity of certain other shops is the shop front at Bath. In this example the door is an integral part of the glazed screen, and the screen itself is enframed by a light and very delicately proportioned motif of architecture. Many interesting variations of this scheme are seen, charming indeed in their wood details of tiny pilasters, columns, entablatures and decorative patterns of transom and fanlight, Georgian in style, with those attenuated proportions so familiar to us in our own Early American architecture. One motif particularly admired is the shallow curved bay window. It occurs often and always to good effect, as in the shops at Bath, Dorking and Wareham,—especially in the latter, where the whole front bows out in a fine wide sweep, contrasted against the single doorway at one side of the small but graceful facade.

It is interesting to note in how many points these English designs resemble modern examples. Just as today, the designer in many cases gave little



Old Shop Front at Guildford, Kent



Bowed Front, Wareham, Dorset

thought to the relation of the shop front itself to the building above. Often it is clearly a case of an alteration to an older building, of the shop forced ruthlessly into a design not suited to it. The shop at Montpellier shows the unusual case of the shop front's forming an integral part of the design of the whole building, there being large rectangular openings between piers decorated with caryatid figures, which come under the columns of the order of the story above. This design recalls some of the best of the recent shop buildings on Fifth Avenue. At the other extreme is the shop at Guildford in which the pilasters of the wall of the upper story have apparently nothing to support them but a flat screen of glass. This again is entirely "modern," and its most flagrant example is a new building on Madison Avenue, New York, in which heavy stone free-standing columns—not light stucco pilasters—rest on a sheet of plate glass. To this structure the Fifth Avenue Association awarded this year its annual prize! It is an extreme example of its kind.

To what extent will the tradition set by these older English shop fronts answer the needs of today? This is a pertinent question for the designer who is seeking ideas and inspiration and who will not copy details blindly. As far as the general character of these old fronts goes—their vivacity and charm and variety, their fine proportions and scale and vernacular style, their skillful use of building materials in design—they have qualities as valuable today as ever. They express the ideal of the small shop, particularly the shops of smaller towns and of our suburbs ranged along the inevitable Main Streets, most of which offer fields for missionary work.

But, as has already been said, the small retail shop is now in the twentieth century a thing of greater variety commercially, and it must reflect the more complex and more specialized character of the shop business. We must have a wider variety of types to correspond with our many kinds of stores, and we have a further opportunity for diversification of each type in our more abundant choice of building materials. Not only that, but our shopkeepers have

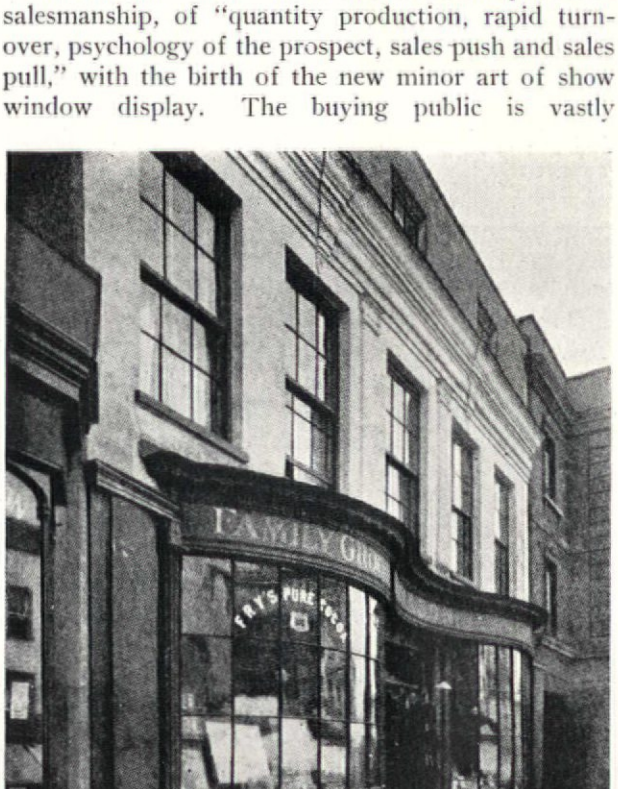
brought out a new idea,—new only since the World War,—one which in itself bids fair to open a new field in design. I refer to the custom of recessing the display front so as to provide not one or two show windows, but many more, a dozen or less, opening off a corridor or vestibule leading from the sidewalk into the store itself. Here the buying public may circulate and may view a large part of the tradesman's stock, excellently displayed, before entering the store to buy. This arrangement attracts the casual passer-by and it also saves the sales people's efforts. Architecturally, this change introduces a new conception. Instead of the screen across the front, we have an intricate series of parts. Design changes from two into three dimensions having endless possibilities.



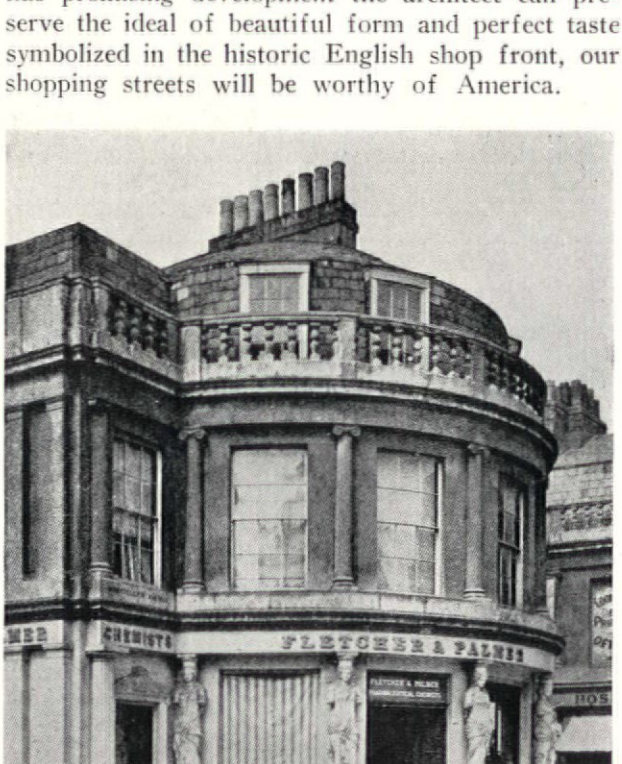
An Old Shop at Bath

To this architectural development into the third dimension are to be added modern conceptions of salesmanship, of "quantity production, rapid turnover, psychology of the prospect, sales push and sales pull," with the birth of the new minor art of show window display. The buying public is vastly increased, and it extends to all classes with every difference in taste. The modern salesman contributes many new ideas which should create a new series of motifs in design, expressing the variety of retail trade, of the public taste, and, more especially, the endless differences in size, shape, color and in scale, of the wares in the show windows. Today the architect must interpret imaginatively the ideas of the salesmen, in new motifs, patterns and ideas.

For these reasons I believe that shop front design is in its infancy. If the architect grasps the salesman's ideas and if he interprets them imaginatively, carrying them far beyond anything the salesman himself now conceives of, the architect will revolutionize the design of the small shop just as he has revolutionized every other type of building now in use. To that extent Main Street will be rescued from its present bleak, drab standardization. If in this promising development the architect can preserve the ideal of beautiful form and perfect taste symbolized in the historic English shop front, our shopping streets will be worthy of America.



"Double-bowed Front"; Dorking, Surrey



Montpellier, "Shop a Part of the Design"

Decorative Treatment of the Schrafft Stores

CHARLES E. BIRGE

IT is not surprising that this group of Schrafft's stores is presented as an ideal type of modern candy stores and restaurants. The motto of the Frank G. Shattuck Company which is responsible for this remarkable group of stores, has always been "The best is none too good." This motto is consistently carried out not only in the materials used to produce the merchandise sold but also in every detail of construction, design and equipment of its several shops and restaurants. No money has been spared to make the interiors as well as the exteriors of all these shops as artistically beautiful, practical, and commodious as possible. Appropriateness as well as variety of design marks the interior decoration. In the smaller shops simple artistic effects have been carried out, while in the larger and more pretentious shops and restaurants decorations of true magnificence have been successfully executed.



Interior of Schrafft Store, Boston
Travertine walls; Pompeian ceiling

For instance, in the Schrafft's shop in Boston, combined with which is a spacious restaurant, the interior decorations are in Pompeian style; soft toned travertine walls and pilasters support a slightly vaulted ceiling which is richly decorated in highly colored designs of Roman origin. The black terrazzo-cloisonne floor with the high black and white marble sub-base gives a rich contrast with the splendor of the colored ceiling.

In the candy shop at 383 Fifth Avenue, New York, another very rich interior has been evolved in tones of old gold relieved with red. The floor is of white marble with a black and gold base. This treatment of the floor is quite different from that employed in the more recently constructed shops. The walls are divided by pilasters into broad panels where are placed paintings in Italian arabesque, the frames of which together with the heavy cornice and ceiling mouldings are decorated in polychrome. In pleasing contrast with the richly decorated candy shop the tea room at the rear is in the Colonial style. The walls are paneled in painted wood of a deep ivory color. An ornamental stairway, which is the chief decorative feature, leads up to a tea room on the second floor, the walls of which are decorated in panels of gray silk. An interesting experiment was tried in the lighting by the use of one very large porcelain vase placed in the center of the shop from which powerful indirect light is thrown upon the ceiling. All of the counters and showcases as well as the wall panels of the candy shop are of Circassian walnut embellished in gold. Decorative paintings set in the vertical panels between the marble pilasters add great richness to the treatment of the walls. Another unusual feature is the use of very beautiful bronze vases for the soda water fountains.

In the little candy shop at 20 West 38th Street, a simple decorative treatment, Georgian in style, has been attractively carried out in gray and gold. Here again the walls are divided into panels in which at various intervals are set mirrors with dull gilt frames having above them decorative panels of flowers and fruit. This shop has a mosaic floor and simple furnishings. In the tea room on the second floor, which is decorated in gray and old rose, alcoves arranged along the sides give privacy for little parties. The walls are relieved by elaborate mirrors in the Italian style, which give dignity and character to the whole interior of this tea room.

In the candy shop and restaurant completed a year or so ago at 13 East 42nd Street a more ornate type of decorative treatment has been followed. The black terrazzo-cloisonne floor gives a deep base for the lighter toned walls and rich ceiling. Suggesting an Italian effect, the walls have been built of travertine in pilasters and panels which carry a ceiling of plaster beams and panels, painted in imitation of walnut and decorated with polychrome application and design, with elaborate patterns stenciled in gold on the intervening ceiling surfaces between the beams. The northern half of this shop at the 43rd Street end is at a lower level, making it possible to



Exterior, Candy Shop and Restaurant, 50 Broad Street, New York

have a much higher ceiling and more impressive treatment. The same Italian scheme of decoration has been used, but the recessed walls have been filled and ornamented by elaborate wrought iron framed mirrors. The height of this restaurant permits the introduction of a mezzanine gallery which has an effective wrought iron railing. The ceiling of this two-story restaurant is treated in an even more ornate rendering of the Italian style. The ceiling beams, which are massive, are supported on high ornamental consoles. The mezzanine gallery, which continues through the entire second story of this shop, is paneled in wood painted soft green and detailed after the Colonial style. The floors are terrazzo as are those below, and the space has been arranged so that part of the tea room is divided into alcoves for the purpose of privacy. This store has a third floor on which is located a men's grill, finished in American walnut in the Georgian style. Continuous benches line the walls in place of alcoves. Heather brown quarry tile are here used for the flooring material. The ceiling above the walnut paneled walls is treated in low beams without decoration. The design of the exterior of this store on East 42nd Street, which is typical of all the later Schrafft stores, shows a pleasing combination of black and gold marble pilasters combined with bronze for the bases, caps and other decorative detail finished in an antique gold color. The whole design is suggestive of the Italian Renaissance, which seems to be the prevailing precedent for the decoration of recent stores built for the Frank G. Shattuck Company. The East 42nd Street facade of this store shows a large window running up two stories surmounted by a fine cornice. Again black marble combined with bronze details has been used for the architectural treatment. Fine bronze rosettes enrich the marble frieze of this facade, and beautifully executed bronze detail gives scale and interest to the large window.

At 141 West 42nd Street a new building for this company has just been completed. Although somewhat similar in plan and design to the shop at 13 East 42nd Street, and running through to 43rd Street as does this other shop, yet the interior has been carried out in an even richer and more elaborate decorative scheme. The treatment of the candy shop which is at the 42nd Street end of the building includes a floor of black terrazzo-cloisonne. All of the woodwork, showcases and counters are executed in American walnut.



141 West 42nd Street, New York

The Italian style of decoration has been carried out in the travertine panels and fluted pilasters of the walls and in the low relief of the ceiling ornamentation in which the principal panels have been painted in Italian arabesque. This same treatment has been carried through the entire ground floor to the 43rd Street end of the building, where is located the restaurant. This room is carried up two stories and is treated with an ornamental mezzanine gallery and monumental staircase. Large mirrors have been set into the wall panels of the restaurant to give an effect of added space. In the mezzanine restaurant alcoves with benches executed in walnut have been built in along each wall. The decorative features of this restaurant correspond in general to those of the one-story candy shop at the 42nd Street end. The ceiling of the high two-story restaurant on 43rd Street is effectively treated with large coffered arches and groined vaulting elaborately painted in Italian polychromed arabesques.



"Suggestive of the Italian Renaissance"

One large window two stories in height, looking out on 43rd Street, lights this restaurant and the mezzanine. The entire wall treatment is carried out in travertine relieved with decorations in Italian red. In the main part of the store travertine is also used, with wall panels embellished in gold and colors. In the lunettes over the two large doorways of the restaurant marble busts have been effectively introduced. As in the candy shop, the floor here is black terrazzo-cloisonne. On the third floor is another restaurant finished in the Georgian style, with the ceiling of plaster simply paneled and decorated with antique gold borders, and the walls of paneled and painted wood.

From these very brief descriptions and the illustrations of several of the New York Schrafft's stores, it is possible to appreciate the amount of care and study which has been employed in designing the richest and most effective architectural and decorative treatments possible for shops of this character.



One End of Candy Shop



Candy and Soda Counters

The Hanan Shoe Stores

By A. D. SEYMOUR, JR.

IN designing the various shoe stores for Hanan & Son the idea constantly kept in mind has been their practical and commercial use rather than their architectural effect. These shops are in existence primarily to retail a high grade shoe, and as such is their purpose it follows that they must be so planned that they will fulfill this function in the most efficient manner.

There is of course a certain advertising value to such a concern in having its various shops resemble each other, but where their situation varies as regards location in different cities, some modification in their layout is necessary. In the case of the shops in the restricted Fifth Avenue district, where a women's retail trade is catered to, the shops are designed especially for this type of trade. If the situation is, for example, on Broadway or any other street where the retailer finds mixed buyers, then the shop takes on a more commercial air, and quick service, seating and stock capacity are considered of chief importance.

Rather than employing a particular style or period design in the interior decoration of these stores, it has been deemed more appropriate to keep them modern in all respects, using the best of materials and construction. No attempt has been made to design an Adam, Louis XVI or Italian interior, nor has any attempt been made to conceal the purpose of the shop by removing the shoe boxes from the salesroom. While the period style shop has been avoided, there has always been careful thought given to the solution of the practical elements entering into the modern merchandising of shoes, such as window display, stock shelving, seating, hosiery display, lighting effects, offices and packing facilities. Special types of rolling ladders and mezzanine balconies have been installed, and where the shop is not of too commercial a character, due to its situation, special tables with chairs have superseded the long settees or benches. In some cases a semi-public or domestic character has been carried out in the design where the customers are principally women.

It has been found by a number of experiments that the show windows should average about 24 inches from the ground for the best display of fine shoes, and that a depth of 4½ to 5 feet allows a good system of window dressing for such small articles as shoes and slippers. A plate glass front of about 9 feet with a false ceiling at that height gives a pleasing proportion and permits good overhead window lighting. Special attention has been given to the type of window hangings and display tables in the windows, as well as the floors of the windows themselves, which in nearly all cases are plain walnut panels, set off with small ebony borders. Any height available above the line of the window deck is used as a transom which, with a corresponding set of interior transoms, makes it possible for the shops to have natural ventilation which in summer is desirable.

In the interiors of these stores a height of about 11 feet is all that can be readily handled from ladders, and the shops that require a larger stock on the sales floor employ mezzanine stock galleries, where the height allows of their use, which is the case in most ground floors in modern buildings. Where more than one floor is combined in the store, the men's department is always placed on the ground floor and the women's department on the second, with a good sized passenger elevator located near the main entrance and served by a lobby, which enables the women to reach their sales floor without passing through the men's department.

The display and sale of hosiery and shoe buckles have always been a feature of these shops, and special consideration has been given to the location and system of merchandising these items. In the shops catering almost exclusively to women, as for example the uptown Fifth Avenue shops, the hosiery display has been located in the center of the salesroom, where it is always visible to attract the customer, although generally this feature is located near the entrance, being passed by the possible purchaser on entering and on leaving the shop.

The lighting of the show windows and hosiery show cases, while always ample in quantity, is concealed from the eye. In cases of corner windows this necessitates using louvers in the overhead window lighting. The surplus stock is usually shelved in the basement and distributed to the various sales floors by means of dumbwaiters. The wrapping of shoes for delivery is taken care of in the rear of the shops, service to this department being by means of doors at the rear of the salesrooms.

The exterior treatment of the Hanan stores in most cases is dictated by the practical consideration of the problems already mentioned, such as show windows, transoms and entrances. Here again a modern commercial character is sought as the best expression for the architectural treatment of the front. Kalamein bronze frames and cornices used in conjunction with certain ornamental cast bronze members comprise the first floor exterior treatment. Where bronze is employed marble is also introduced as the base upon which the front rests, and the remainder of the exterior is either limestone, terra cotta or marble, depending on the relative importance of the shop, due to its location and the length of its lease. The name of the concern is in most cases displayed in classic bronze letters, and all ostentatious advertising by means of electric signs or large name plates is avoided. This idea of restraint might be considered the underlying characteristic of all these shops as expressed in their various elements, where quality of material is the main consideration.



A RECENT FIFTH AVENUE SHOE SHOP
ROUSE & GOLDSTONE, ARCHITECTS



SHOE SHOP OF FRANK BROTHERS, NEW YORK
ALFRED FREEMAN, ARCHITECT

SHOP OF FRANK BROTHERS
NEW YORK

Upper Illustration, Plate 89

Straightforward and simple in conception, the design of this shop speaks for itself. The architectural treatment of the lower floor is well adapted to the purpose of display windows and entrance. While not at all unusual, the design has been carried out with such refinement of wall surface, such delicacy of carved detail and such restraint in execution that a result has been obtained deserving of much appreciative consideration.

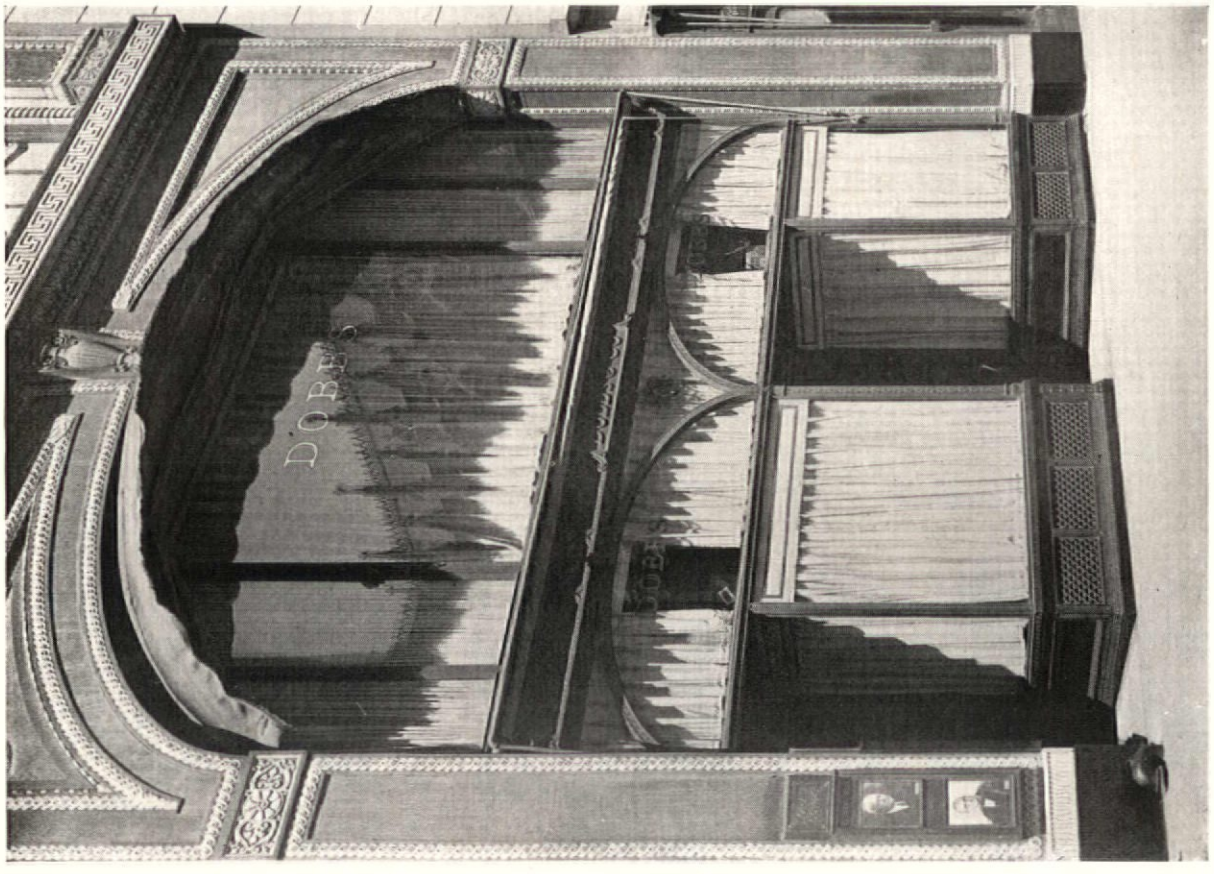
CAMMEYER, NEW YORK

Lower Illustration, Plate 89

In this illustration only one-half of this store front is shown, but this single motif is sufficient to indicate the dignity and restraint of the composition. Perhaps the arches of the show windows could have been slightly narrower in order to give more masonry strength on either side of the entrance door, but the design as a whole shows a pleasing compromise between architecture and commercial necessity. The well proportioned arch windows are enframed by heavy black and white marble mouldings of simple contour. In contrast to the strength of these mouldings, carving in high relief suggestive of Grinling Gibbon has been introduced. Unfortunately there is little scale in the design, since only in the entrance door was the architect allowed to use small panes of glass.



SHOW WINDOW OF THE NEW YORK BIBLE SOCIETY BUILDING
WILFRED E. ANTHONY, ARCHITECT



A TWO-STORY SHOP FACADE
McKIM, MEAD & WHITE, ARCHITECTS

NEW YORK BIBLE SOCIETY BUILDING, NEW YORK

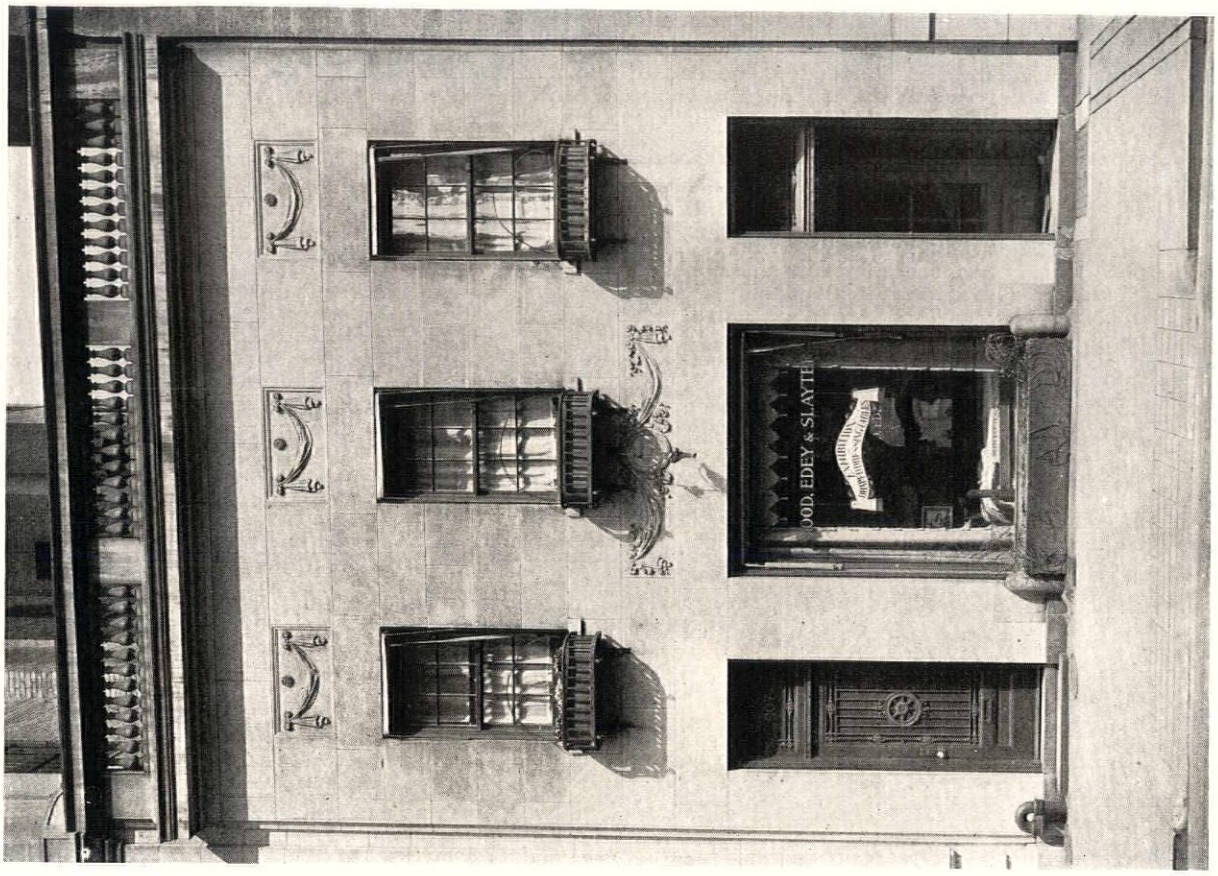
Upper Illustration, Plate 90

Reminiscent of old English shop fronts, this show window for the New York Bible Society combined with the well studied entrance door is one of the best designs of recent execution. The bowed plan of the window as well as its unusual height gives appropriateness to its location between two of the heavy upright stone piers of the tall building which rises above it. The window itself is kept in good scale by dividing it into three tiers of openings filled in with small leaded panes. The same sized panes are used in the openings of the double doors and the mullioned window above, tying together all the openings in one scale.

SHOP OF DOBBS & CO. NEW YORK

Lower Illustration, Plate 90

620 Fifth Avenue shows perhaps the finest example of the modern type of shop front to be found. This design shows a masterly combination of architectural terra cotta and marble detail with bronze framework. The design satisfies the requirements of the average shopkeeper who insists that as much of the front of his shop as possible shall be plate glass for extensive display windows. The entire front is one large arch composed of pilaster panels of dark gray marble enframed with richly colored terra cotta mouldings, plinth blocks, and a very ornate keystone. The bronzework of the windows, entrance and sign frieze is extremely delicate in detail and execution. The unusual charm of scale found in this design is largely due to the intelligent architectural handling of the slender bronze framework.



A LITTLE BUILDING FOR A FIRM OF INTERIOR DECORATORS
CROSS & CROSS, ARCHITECTS



A TWO-STORY SHOP FRONT IN ENGLISH STYLE
ELSIE COBB WILSON, DESIGNER

WOOD, EDEY & SLAYTER
NEW YORK

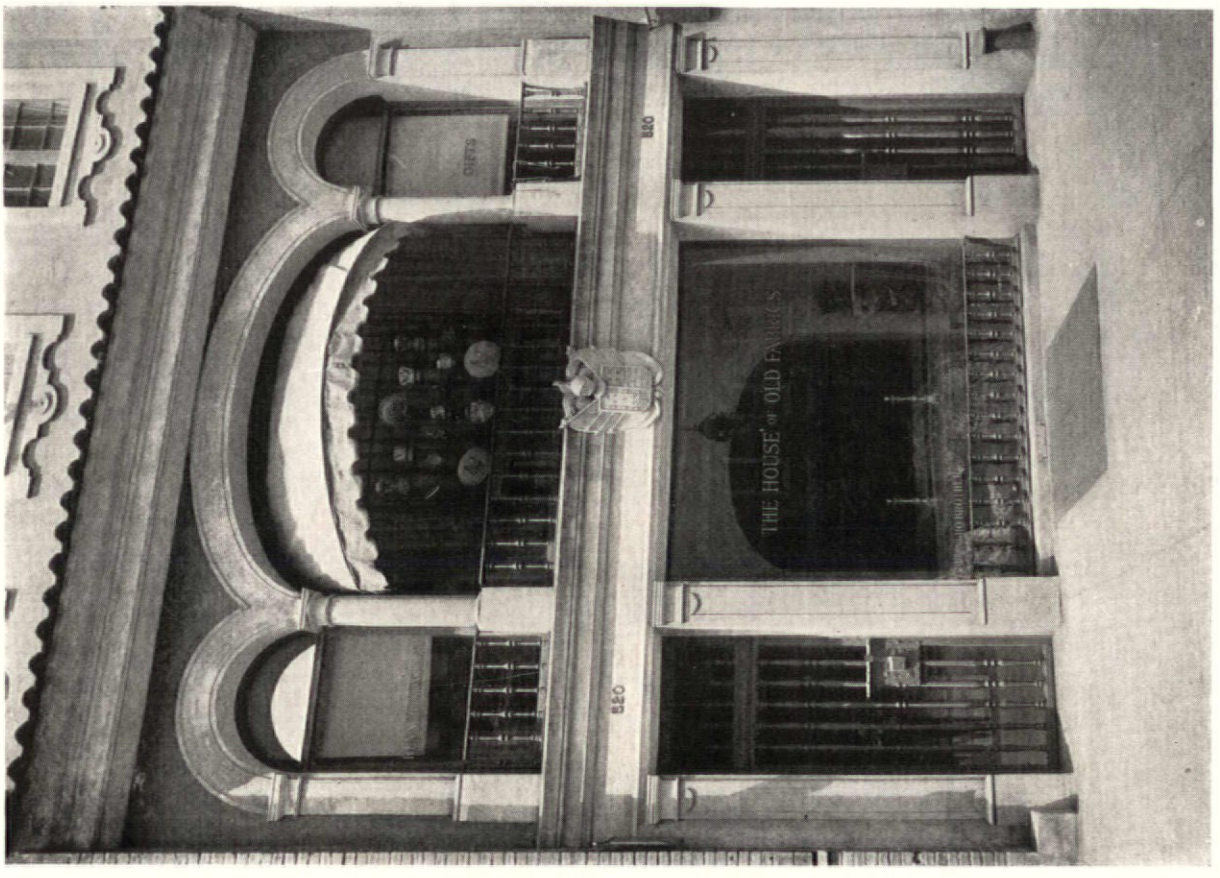
Upper Illustration, Plate 91

This little building, designed for the shop of an interior decorator, shows a pleasing simplicity and restraint in design. It is unfortunate that the space apparently required for the central show window should have necessitated placing the two doorways out of line with the windows above. However, the carved design in low relief above the show window serves as a note of division between the upper and lower parts of the design. What carved detail there is has been carried out in the style of the Adam brothers, and the small flower box balconies in front of each window further suggest English precedent. Small panes of glass in the show window would have better carried out the feeling of scale in the entire design, yet the small scale of the articles displayed, combined with the window draperies themselves, helps to save this show window from being a blank hole in the wall.

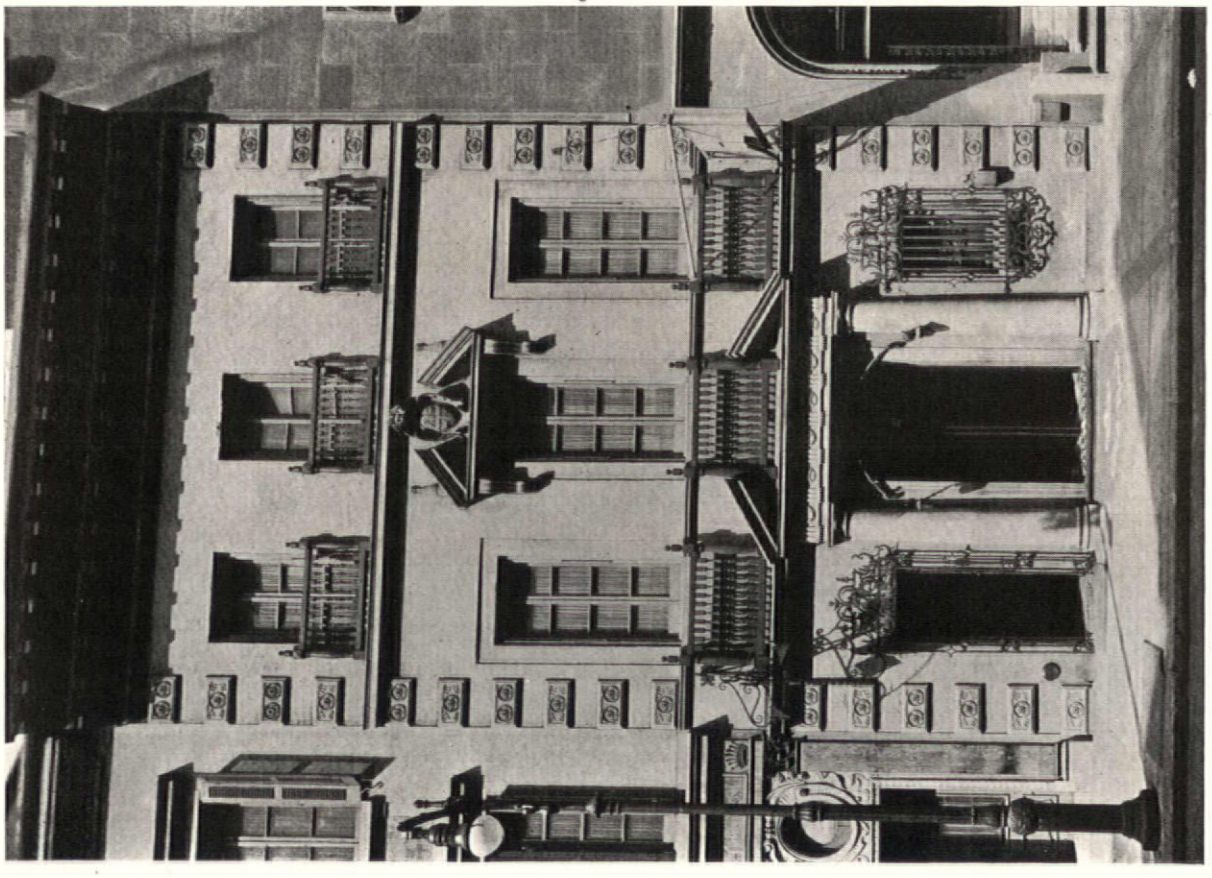
SHOP OF ELSIE COBB WILSON, INC., NEW YORK

Lower Illustration, Plate 91

Perhaps the most attractive as well as successful shop front recently completed in New York is that of this two-story interior decorator's and antique shop. Inspired by the best English work of the Georgian period, this design is an example of good scale in both detail and arrangement. Although distinctly a two-story design, perfect cohesion has been obtained by the use of small panes of glass of uniform size in the windows of both floors, enframed by pilasters and a high entablature executed in Adam detail.



A TWO-STORY SHOP IN THE SPANISH STYLE
DAVID ASH, ARCHITECT



A STORE FRONT IN THE SPANISH STYLE
WILLIAM LAWRENCE BOTTOMLEY, ARCHITECT

THE HOUSE OF OLD FABRICS NEW YORK

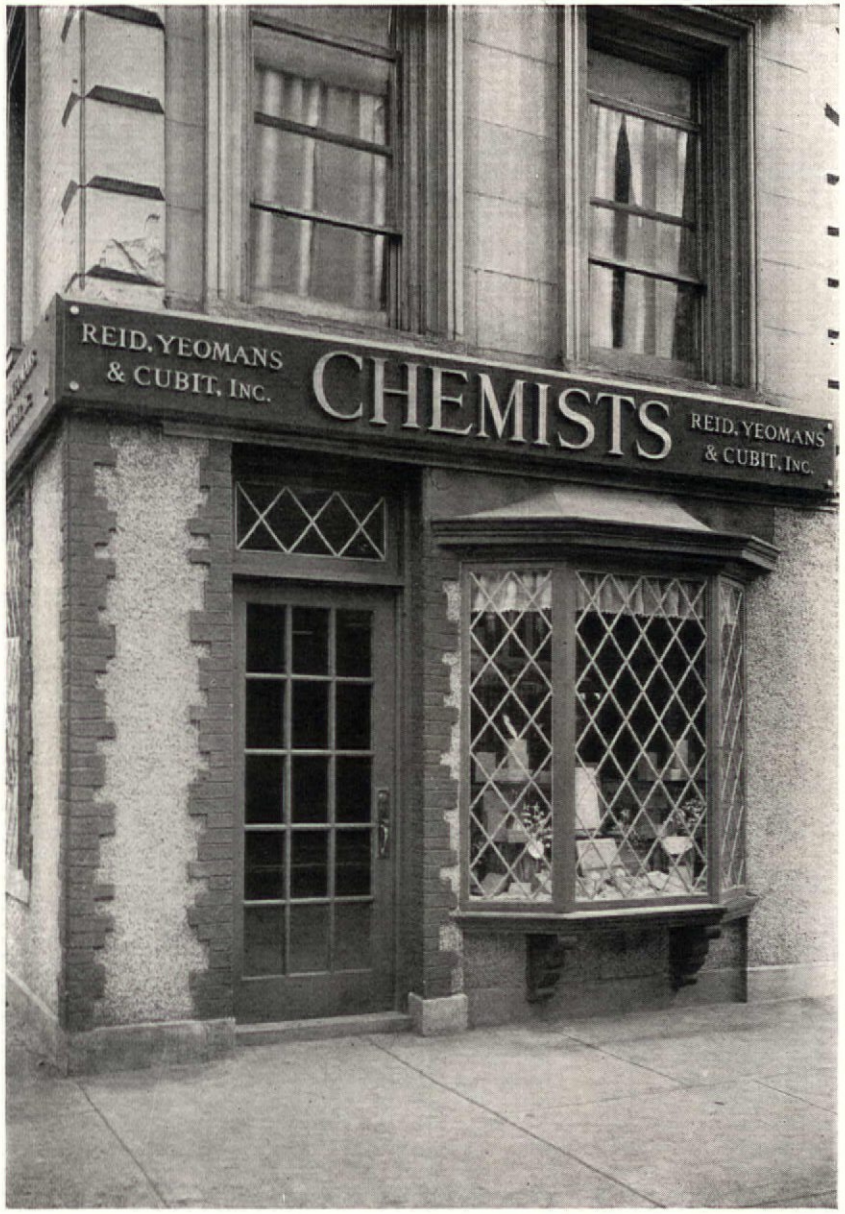
Upper Illustration, Plate 92

In "The House of Old Fabrics" a simple design in two stories has been carried out, suggestive of the Spanish Renaissance. A legitimate architectural motif in three arches over three openings has been made to adequately serve the requirements of commercialism. The spacing of the pilasters on the ground floor gives sufficient architectural support to the rather heavy entablature, which carries the low arcade treatment of the second story. The feeling of the Spanish influence has been further successfully suggested by heavy wrought iron baluster grilles which protect the entrances and the several windows. The final touch needed to make the design complete and tie the whole together is found in the well-modeled armorial cartouche which centers the entire design.

THE CLUB ROYALE, NEW YORK

Lower Illustration, Plate 92

Although this design is not particularly suggestive of commercialism, no better artistic expression for a shop devoted to the sale of Spanish and Italian antiques could be designed. The exterior perfectly recalls some of the smaller Renaissance houses of Madrid and Seville. The warm toned stucco walls, relieved by the painted iron grilles and window balustrades combined with the unusual quoin blocks, attract without the use of show windows the passer-by to enter. The character of the Spanish Renaissance is still further emphasized by the heavy projecting double cornice painted in browns, blues and reds, and by the broken pediment and large ornamental cartouche over the center window.



A CHEMISTS' SHOP OF SIMPLE DESIGN
BUFF PLASTER WITH BRICK TRIMMINGS



A TWO-STORY SHOP FRONT IN THE ENGLISH STYLE
WALKER & GILLETTE, ARCHITECTS

GEORGE D. SMITH PRINT SHOP
NEW YORK

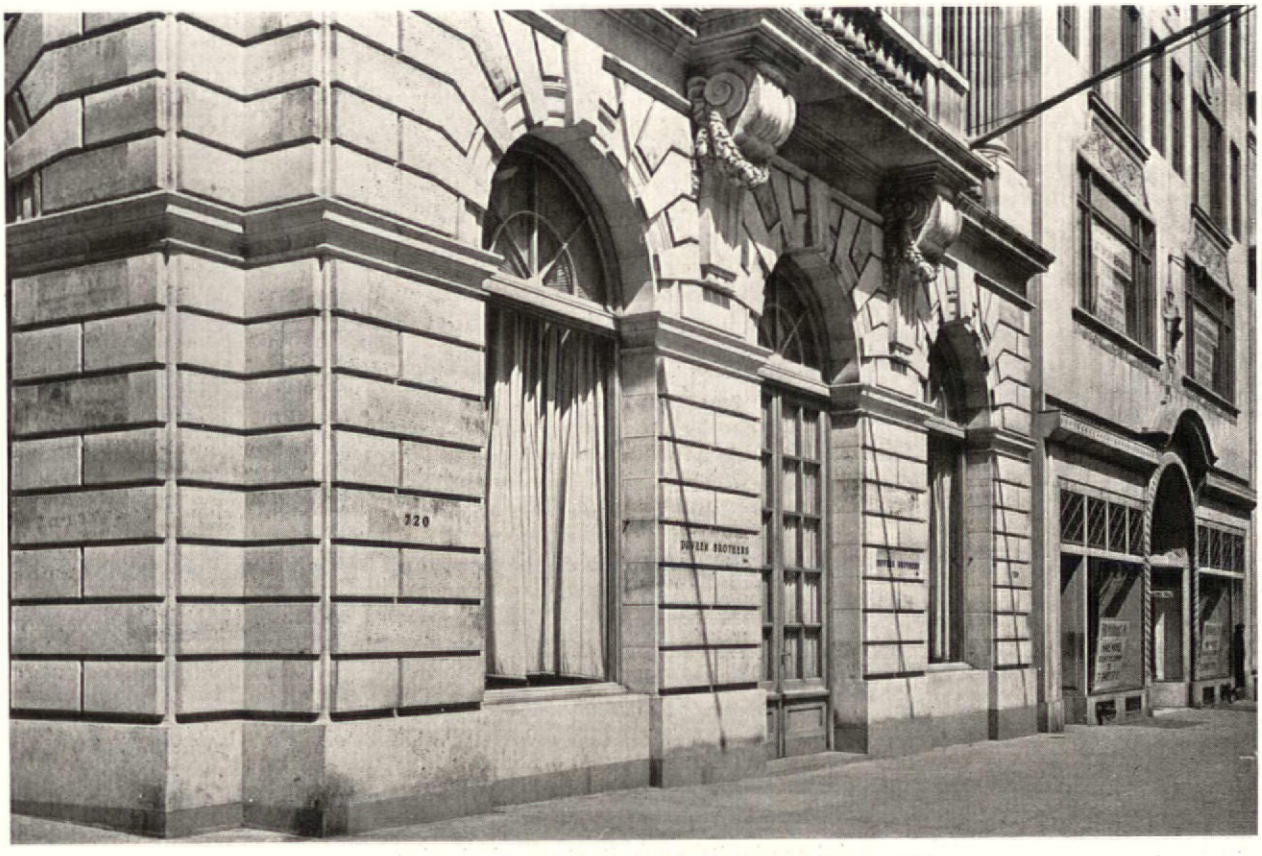
Upper Illustration, Plate 93

In execution and in scale 8 East 45th Street, New York is an unusually good example of the adaptation to modern uses of an old Jacobean store front, yet it is unfortunate that the floor levels of this renovated building should have been such as to give the second story undue importance in the design of the whole shop front. It has been attempted to overcome the predominance of the second story by means of the high gabled entrance porch at the right of the design. Great consideration of scale has been shown throughout the entire design, not only in the uniform size of the window panes employed, but also in the detail of the excellent carved decoration carried out in dark stained wood.

REID, YEOMANS & CUBIT, INC.
NEW YORK

Lower Illustration, Plate 93

In these days when something new and different in every line of life is sought for, it is interesting to see what a pleasing effect has been accomplished in the simple renovation of this corner chemists' shop. The brownstone veneer has been stripped from basement walls of this old residence and use made of rough plaster of a deep yellow tone with red brick trimmings. Besides the introduction of color, to give particular zest as well as scale in all of the show windows as well as the door, small panes of glass have been used. The oriel window on brackets is a pleasing note of contrast to the flat show windows on the side street. There is something quite intimate and personal about this little shop, well worthy of study and emulation.



THE NEW YORK SHOP OF DUVEEN BROTHERS, INC.
HORACE TRUMBAUER, ARCHITECT



THE STORE OF M. KNOEDLER & CO.
CARRERE & HASTINGS, ARCHITECTS

DUVEEN BROTHERS, INC.
NEW YORK

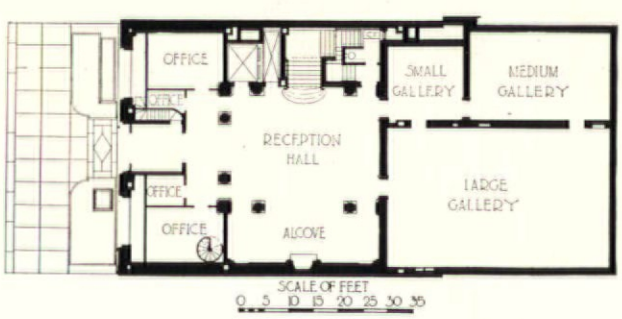
Upper Illustration, Plate 94

In the shop of Duveen Brothers the style of Louis XVI has been so closely followed that one might almost imagine the address to be *Rue de la Paix* instead of Fifth Avenue. Here again the demands of commercialism have been subordinated to fine architectural design. The show windows and the entrance door are formed by symmetrical arches in the front facade. The rusticated treatment of the stonework which is carried throughout the basement story is brought down in alternating voussoirs in the arches, typical of the Italian and French Renaissance. Banks of delicate mouldings which form the caps to the arched piers are carried across the three openings in heavy transoms, above which the arches are divided by curving and diagonal mullions, giving scale to the openings.

SHOP OF M. KNOEDLER & CO.
NEW YORK

Lower Illustration, Plate 94

There is little architectural similarity in the designs of these two New York art stores. The shop of M. Knoedler & Co., is an interesting example of the adaptation of palace architecture of the Italian Renaissance to modern commercial requirements. The three large arches, which in Florence would very likely have been enclosed with curtain walls of stone, here give ample open area for overhead light and lower show windows. The center arch is largely filled with a doorway well designed in bronze. The rustication of the piers and arches is of the "vermiculated" type which is frequently found in the architectural designs of Michaelangelo and gives an unusual play of light and shade to what might otherwise be quite ordinary stonework. Guard rails of delicately wrought bronzework protect the base of the large show windows.



FIRST FLOOR PLAN



INTERIOR OF THE CHICKERING & SONS STORE



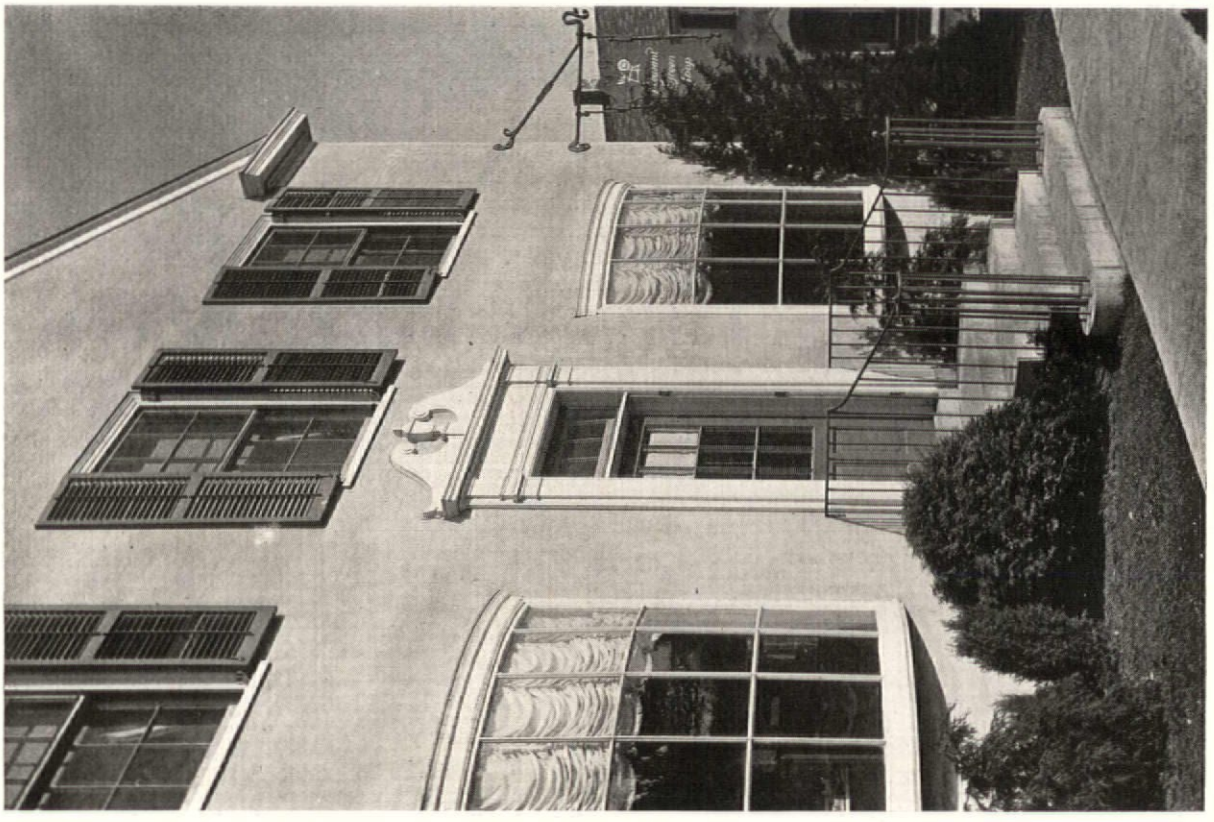
A BOSTON PIANO STORE
RICHARDSON, BAROTT & RICHARDSON, ARCHITECTS

SHOP OF CHICKERING & SONS BOSTON

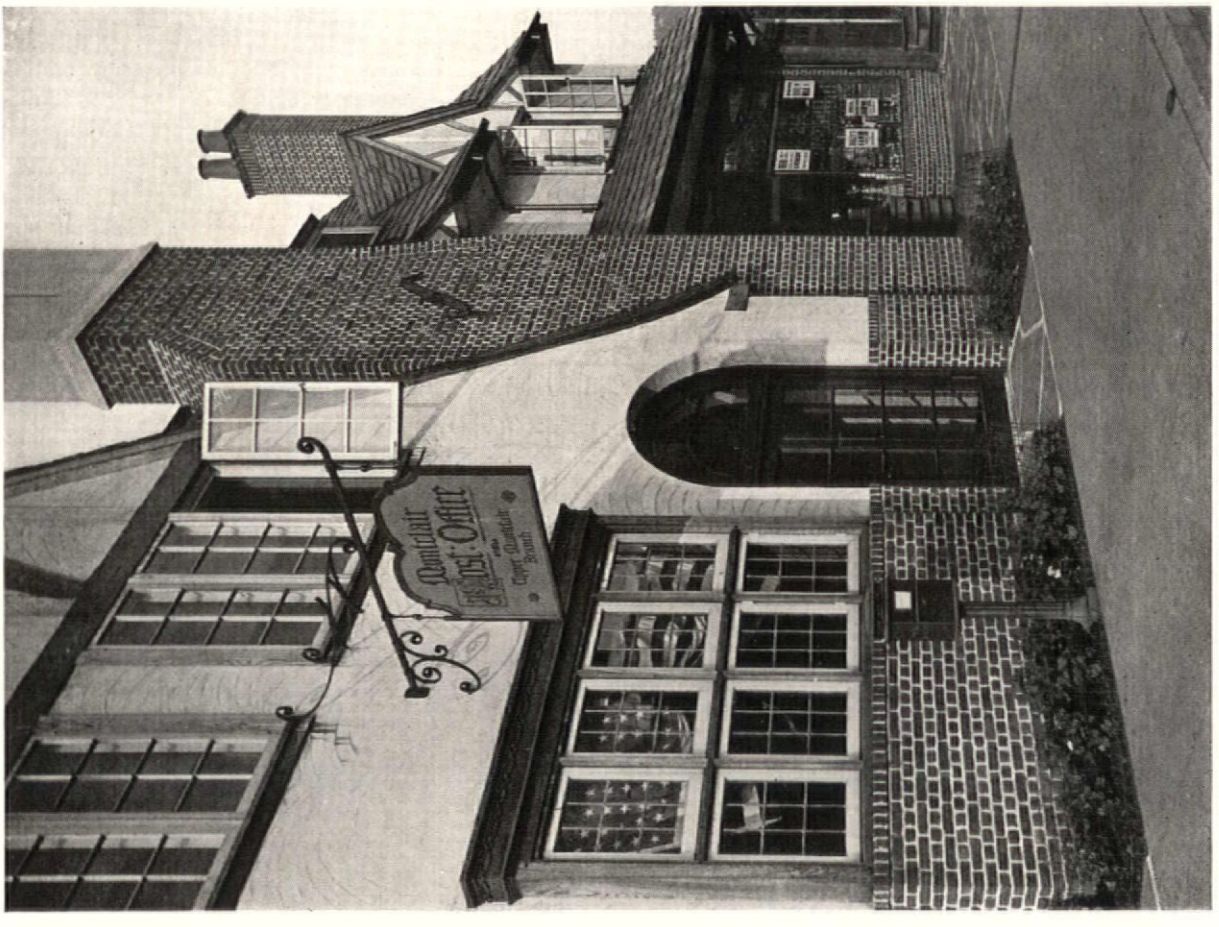
Illustrations, Plate 95

Among the best small shops built in Boston during the past ten years is the showroom for Chickering & Sons. The exterior design, which unfortunately has recently been altered in order to provide a large show window, was originally as shown here, a simple Colonial design in three arches enriched with a delicate portico of slender columns and light entablature. The whole design suggested some of the old house fronts on Beacon Hill.

The Colonial spirit was carried out with equal success in the interior where one large showroom was provided, having pilasters and panels for the treatment of the walls and a Colonial stairway in an open well at one side, while finely modeled columns and entablature defined the ceiling of the showroom.



A VILLAGE STORE IN CONNECTICUT
MURPHY & DANA, ARCHITECTS



SUBURBAN POST OFFICE AND SHOP
FRANCIS A. NELSON, ARCHITECT

A VILLAGE STORE IN CONNECTICUT

Upper Illustration, Plate 96

In this country shop Murphy & Dana, Architects, have combined domestic with commercial architecture in a pleasing manner. Slightly more emphasis on the commercial character of the design might be desirable, for the design is so restrained and domestic as to suggest hardly any commercial purpose. It might be called the country store de luxe, so finished and refined is the design; but the slightly bowed windows which are supposed to suggest the shop within and the delicate Colonial details of the entrance door with its granite steps and iron railings are all in perfect scale and form a pleasing contrast to the plain stuccoed walls of the building.

POST OFFICE, MONTCLAIR, N. J.

Lower Illustration, Plate 96

In Montclair, New Jersey, Francis A. Nelson, Architect, has been unusually successful in obtaining a rural quality in the Post Office and shop group recently erected. The group is well studied from points of view of both scale and picturesqueness, to say nothing of color. The small-paned mullioned windows, the numerous dormers and gables and several chimneys with chimney pots sound the note of domesticity and informality so essential to small town architecture. The care with which the various elements of the design have been grouped, as indicated in this one illustration, has given the picturesque quality which seems to be accidental and not intentional. The striking contrast of the red brick and the warm toned rough stuccoed walls gives a refreshing color note to this charming group of small buildings.

Ornamental Shop Fronts

By PARKER MORSE HOOPER

THAT the English shopkeeper is awakening to the commercial value of the architectural shop front is admitted in articles on the subject published recently by the *British Architect* and the Manchester *Guardian*. That the French shopkeeper with innate æsthetic sense and natural shrewdness has always known the business asset of an artistic shop front is evidenced by the care and study spent upon the smallest shop as well as the largest store to make it architecturally attractive and appealing. In fact it is from the French shop front that both English and American architects are seeking and deriving their inspiration in developing this new and distinct type of commercial architecture.

In this country during the last century little thought was given to the design and artistic effect of either the exterior or interior of the store. It was, as it always had been, simply a place for the display and sale of goods, from the general store of the village, where anything from pins to plows could be purchased around the social airtight stove, to the great department store of the city, such as A. T. Stewart built up half a century ago to the amazement and delight of the purchasing public. The department store is only a logical development of the general store of the village; instead of there being one shelf for shoes and stockings, half a floor is devoted to them. As the goods sold have increased in variety and volume, so in proportion have increased the amounts of space devoted to the display of goods, not only within the shop but without as well. The windows, where the passing public sees at a glance the merchandise offered for sale, have been increased in size until they occupy every inch of space not required for entrances. In many stores these vast show windows of plate glass occupy the entire lower story, in some cases even the two lower stories of a street facade. The upper stories of such buildings seem to rest on a basement of glass, where architectural support and adornment, most needed from the point of view of good design, have been subordinated to the commercial idea of utilizing all of that part of the facade nearest the sidewalk for the purpose of display windows,—an idea, which, still prevailing in ninety-nine stores out of a hundred, gives small opportunity for any logical architectural treatment. It is the hundredth store, large or small, which is worthy of appreciative analysis, but happily there are many good examples.



Excellent in Proportions, Scale and Design
Carrere & Hastings, Architects

The gradual migration of the retail shopping district from Union Square, Broadway and 23rd Street, which started 20 years ago, gave the opportunity as well as the inspiration for the creation of a new and distinctive type of commercial architecture such as this country had never known before. Such designs as McKim, Mead & White carried out for Tiffany's and The Gorham Co., and Trowbridge & Livingston executed for Altman's, set the precedent, which every other well known retail store large or small, in one way or another, tried to follow,—designs where structural consistency and architectural consideration were made of paramount importance to commercial demands and traditions, where arcades and colonnades of stone or marble gave ample space for show windows and entrances in facades of great dignity and beauty. Slowly but steadily as this migration goes on, one new shop after another springs up on Fifth Avenue above 34th Street or the adjacent side streets to show a new and varied treatment of the shop front or the store. Lord & Taylor's, at 38th Street and Fifth Avenue, ten years ago was hailed as a worthy example of the finest type of commercial architecture. Then followed, one after another, a succession of beautiful shop fronts, no two alike, yet all possessing the same rare qualities of studied scale and perfected proportion. The inspiration for their design was derived from every known architectural tradition, yet they show such originality of treatment that they cannot be called plagiaristic adapta-



Shop Front of Revillon Freres



One of Several Side Windows

Henry Otis Chapman, Architect

tions. Such a consistency and similarity of scale as are shown in all these recent shop fronts help to give Fifth Avenue an architectural uniformity, which even the variety of individual motifs cannot altogether prevent.

In the individuality of motifs two distinct types predominate. One type utilizes the older idea of making the entire front of glass, regardless of all principles of architectural design, while the other type limits the size of the show window to the requirements of the architectural setting in which it is an indispensable element. Through this latter treatment it is possible to give a uniformity and consistency to the design of the entire building, which obviates the undesirable and non-structural effect of a masonry building resting upon a basement of glass, which is invariably unsatisfactory.

The material with which these two types of shop fronts are carried out has much to do with the individual charm and character which are so perceptible. Bronze, marble and architectural terra cotta have been combined in many delightful designs, but they have been employed so frequently almost alone, that it seems desirable to consider each material separately.



Effective Use of Black and Gold Marble and Gilded Bronze

Warren & Wetmore, Architects

It is in the attempt to give the large open shop front with its expanse of plate glass some sort of architectural scale and treatment that bronze has come into popular use. The structural frames which divide the front into entrances and windows, when constructed of bronze or wrought iron, are adapted to use of rich ornamentation. Often the upright members are designed as slender pilasters elaborately decorated in low relief in the styles of the French or Italian Renaissance, or as carefully turned balusters after

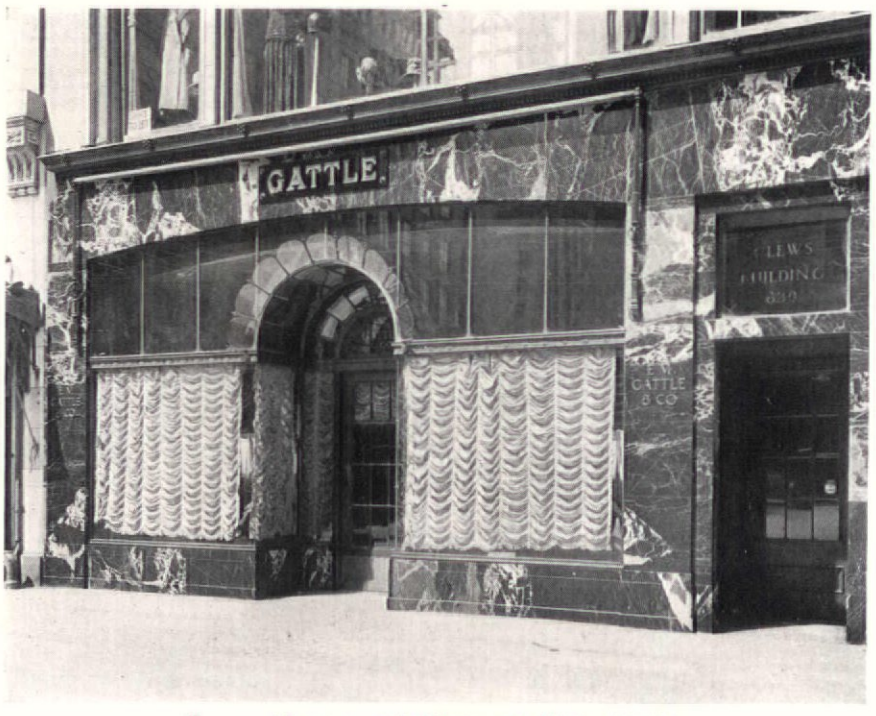


Interesting Use of Colored Marbles
G. A. & H. Boehm, Architects



Shop Front at 680 Fifth Avenue
Welles Bosworth, Architect

the Spanish style. The horizontal members are arranged sometimes as narrow cornices crested with delicate decorations of scrolls and small anthemions, suggestions of Greek and Roman ornament, or they are built up of slender mouldings charmingly chased and carved. Among the recent examples of elaborate bronze work are the fronts of Alexander's and Revillon's on Fifth Avenue, to mention only two. In the Alexander shop, Carrere & Hastings have combined in a masterly manner perfection of proportion and scale with refinement of detail and design. The restraint of the rustication of the basement and upper window trim, together with the soft coloring of the marble moulding enframing the shop opening and the delicate tints of the sgraffito decorations on the plaster wall surfaces above, suggest Italian influence in the design of this beautiful building. It is in striking contrast to the vigorous treatment of this shop facade as a whole that the most delicate designs in bronze have been used to ornament the tops of the show windows and the interesting domical glazed hood which protects the entrance door. In the Kirkpatrick shop a still more elaborate use of bronze detail is found in the balusters' supports and ornamental frieze band of the windows, as well as in the entrance doors themselves, showing panels and over-decorations in low relief. The delicate decorations of the corner balusters and the cornice and finials above the door are worthy examples of the metal worker's art. In the two facades of the Revillon shop is found, perhaps, the most elaborate as well as the most successful use of bronze detail. Here the entire architectural treatment of each window has been carried out in bronze in a most interesting design slightly



Bronze Muntins and Black and White Marble
Starrett & Van Vleck, Architects

suggestive of the French style of Francis I. The large segmental arched windows have been given a splendid sense of scale by breaking them up with arches, pilasters and cornices of bronze.

Marble has many qualities to recommend it as a material for the decoration of shop fronts. First of all, because of the variety of tones and colors in which it may be procured and the innumerable contrasts and combinations in which it may be used it is desirable, and for a second reason, because the highly polished surface of marble gives protection and permanency to the color, where lasting color effects are desired. As the use of color in every form of architectural decoration is becoming steadily more popular, so marbles of every known hue, stone in browns, yellows, grays, pinks and whites, and the limitless range of colored terra cottas are being employed to an extent unknown before.

Perhaps the most successful use of marble is in designs such as the Dreicer shop front, where pilasters, base and entablature of black and gold marble have been combined with dull gilded bronze in pilaster bases and caps and in the trim of the windows and doors. The effect, which is both rich and restrained, makes a very pleasant contrast to the typical facades of limestone and light brick. Another example where marble has been used successfully, if less architecturally, is found in Gattle's shop front. Here large polished slabs of black marble veined with white have been used to enframe the entire shop opening. With the marble has been combined plate glass held in place by thin bronze members and muntins in an unusually simple and straightforward design. Even the scalloped glass cresting which forms a sort of hood over the doortop is without metal decoration of any kind. At 587 Fifth Avenue a very striking marble store front was designed for Peck & Peck. This front is interesting on account of the combination of two kinds of marble used for the trim and the surface of the three lower stories. Although the effect is rather startling, the design as a whole would be quite successful had it been possible to tie together the upper and lower portions of the facade, which as shown have no architectural connection or conformity in scale or design. Even the pilaster divisions between the openings on the street level have no relation with the wall spaces between the five small windows on the second floor.

The shop front at 680 Fifth Avenue illustrates the use of the second story show windows which are now in wide use for the exhibition of objects which are fairly large in size. The design has been so handled and the openings so well grouped that notwithstanding the large proportion of door and window space the facade presents an appearance of strength, dignity and consistence.



Admirable Because of Its Good Proportions and Simple Design
A. D. Seymour, Jr., Architect

The Development of the Arcaded Shop Front

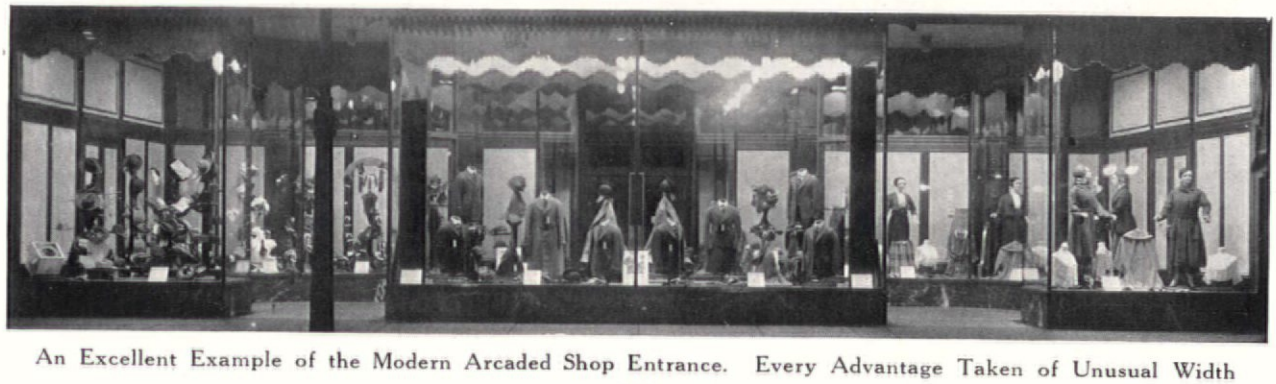
TODAY, as a person walks along the commercial thoroughfares of the nation, he finds store front after store front, almost continuous on both sides of the more important streets, designed so as to attract his attention, and present to him in the most appealing manner the merchandise that is for sale within. To the casual observer these attractive store windows and the artistic displays of goods they contain may mean only a general indication of tempting prosperity, shown by the style and success of the merchants, but to the architect who permits his mind to briefly reflect, they tell a story of real and rapid development of one branch of his profession's work.

Until about 50 years ago show windows in the stores of this country were made of small pieces of window glass. History tells us that plate glass was first used in large sheets for display window purposes by an American merchant in the 70's of the last century, and that it came about merely as an accident. In some way most of the window glass in one of the old wooden sashes of his single show window was broken. The weather being a bit chilly, it was necessary for him to close the opening. Rather than board it up, he scraped the silver from a French mirror, removed the damaged sash and put the large, clear glass in its place. Even in those early days the increase of his sales of articles displayed in the window, makeshift as it was, was noticeable, for it permitted people to see his goods better than they could before the accident happened. What was true of the sales power of this chance pioneer's show windows was even then, although not fully realized, true of all merchants' store fronts, for as said years later by Marshall Field, "goods well displayed are half sold." That fact, combined with the more open effect obtainable with the plate glass front, brought it into common use in a comparatively short time.

The first of what we now know as modern store fronts was not built until seven years after the Spanish-American war. That first group of show windows built as a sales asset for the merchant was erected about the time that the first two-cylinder automobile was chugging its way on Fifth Avenue. Since then the development of the art of display of merchandise and the advances made in highway transportation have gone forward almost hand in hand. In the late '70's, and even during the early years of this century, the merchant who transacted his business behind dingy, dark and unattractive show windows was not considered particularly out of date, but today if that same storekeeper has continued in business, if he has progressed as is so essential for his own welfare, it is likely that the front of his building today has an appearance that "pulls" trade 24 hours of each day.

The store front of today was not a sudden development, but rather took form step by step. The development and more common use of structural steel made possible the elimination of supporting columns which formerly limited the width of single show windows. The bulky wood setting and corner posts which obstructed the view of passers-by and which were anything but permanent, were replaced by small yet sturdy sash and bars made of some indestructible metal. The mouldings of which these parts were formed were and are today small and inconspicuous, yet they are so shaped that they not only have beautiful curves and sharply defined corners but also hold the glass in a firm, resilient grip, thereby reducing to a minimum the possibility of glass breakage. The development might have stopped at this point, but it went on in order that the entire store front might be right and complete from sidewalk to cornice line and from corner pier to corner pier of the building. Head jamb, side jamb, transom bar and bulkhead coverings were provided, permitting any number of variations, and at the same time permitting the use of stock material with which every possible condition of new or remodeling work might be met.

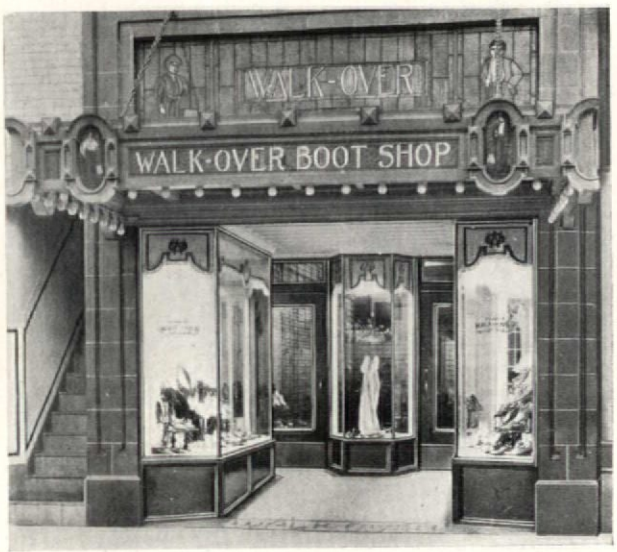
More complete education of the merchants in all lines of business activity throughout the entire country soon brought about a much fuller appreciation of the real sales-producing value of their glass window fronts, which formerly had been largely



An Excellent Example of the Modern Arcaded Shop Entrance. Every Advantage Taken of Unusual Width



Recessing Door Creates Deep Windows. Excellent Opportunity for Display



The Utmost on a Narrow Plot; Arcading Affords Window Space

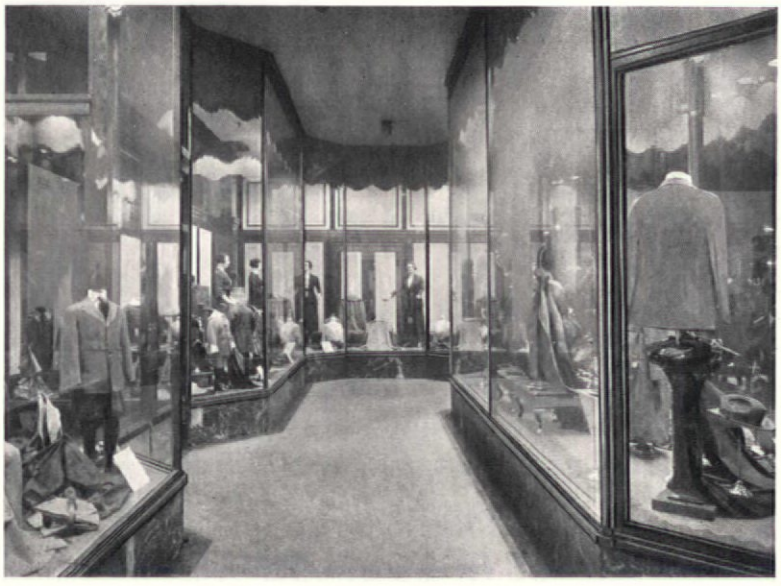
neglected, having served mostly as a protection from storm and theft. The response, which was prompt, helped to pave the way for the neater and more profitable designs which this new material made it possible for architects to submit to their clients. The level of store floors came to be made about the same as that of the sidewalk outside instead of being two or three feet higher, thus making it much easier for prospective customers to enter the merchants' places of business. This may seem to be but a detail, yet it is a detail of importance for the buying public, which like the water of a river, to quite an extent, follows the line of least resistance, so that all obstacles, however slight, which might deter people from entering and buying should be removed. The heights of window floors were made to conform to the kinds of goods displayed, for it was realized that furniture should be shown at nearly the level of the sidewalk, while rings and other articles of jewelry should be presented to the public in about the position a person naturally holds his hand. In this way came about the early application of the law, which was later formulated thus: "Merchandise to be displayed to the best advantage must be shown to the



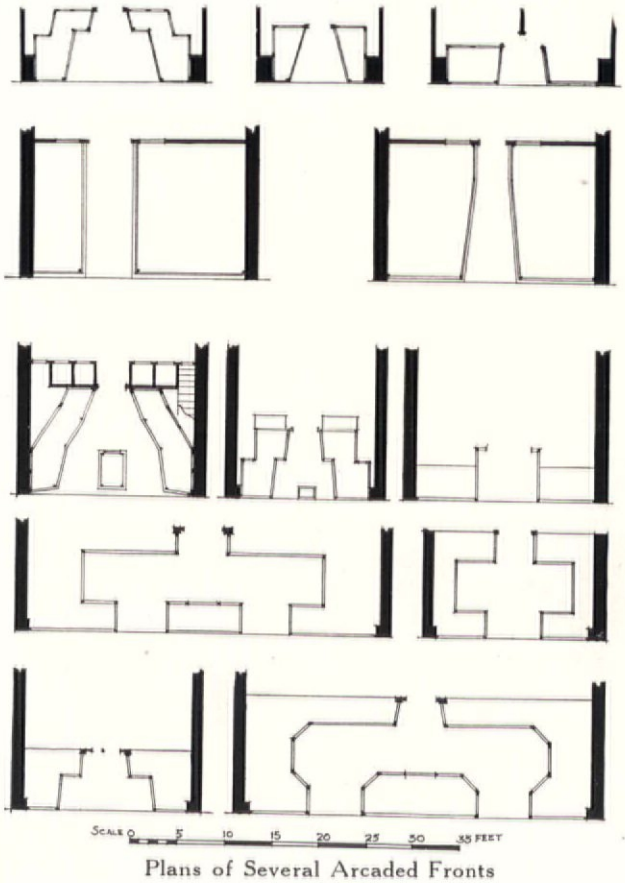
Could More Attractive Window Display Be Easily Imagined? Result of Arcading, Keeping Floors of Windows Low

public in as nearly as possible the position in which it is intended to be used."

The early store fronts in which plate glass was used were of the most simple design, a straight front and a door, with perhaps a slight return at one side or the other. Advancing from this to another stereotyped design, the door, with a narrow and shallow return, for a while was commonly placed in the center with show windows at each side. But with the introduction of metal settings these two old fashioned types of fronts, although still occasionally used, were largely thrown into the discard, being replaced by layouts which were much more elaborate, more beautiful, and which also permitted a much greater display footage on lots of the same width. With the growth of our centers of population and corresponding increase in always high property values and rentals this feature has come to be of more and more importance. It is, of course, quite largely the power of property to produce sales that determines the return it will bring on the investment, while at the same time the power of a location to effect sales is to a greater or lesser degree dependent upon the footage of display it affords. It is this fact as well as the desire for the best possible appearance that has brought about the greatly increased popularity of the "arcade" style of front that is now so often used in New York, Chicago and other cities. By having store fronts of this type of design, with one or more "island" show cases, the display footage on a 50-foot lot may be easily made as much as that on a lot of 150 feet or even more. Although the financial returns are probably not in direct proportion to this increase of display footage, they are related to it to such an extent that the extra cost of the more extensive "arcade" store front has proved to be a good investment for thousands of merchants.



Arcaded Entrance to Men's Clothing Store. Windows Shallow But of Large Frontage



Plans of Several Arcaded Fronts

In the design, manufacture and sale of standard store fronts, the goal has been to give the architect the best possible material, and neither effort nor expense has been spared to accomplish this end. Manufacturers have striven not only for better appearance, but also for absolute permanency, making the store fronts waterproof, reducing glass breakage to a minimum, and very largely eliminating those two old time shopkeeper's bugbears, dust and frost. These ideals have been attained through years of study and experience. As buildings of today are built to stand for centuries, so the glass setting should be equally enduring. Realizing this, the manufacturers of modern store fronts make use only of metals that do not rust or deteriorate. All kinds of putty or cement, which in time is almost certain to harden and crumble when used for the setting of large plate glass, have been eliminated. By using solid copper or bronze for all glass-setting members, the demons "rust" and "upkeep" are eliminated so far as the store front is concerned.

Twenty years ago all merchants doing business in the northern states were confronted with the ever-present problems of frost during the winter and dust during the summer. The store front of today would

not do for the merchant what it ought to do unless it did its share to reduce the possibility of such troubles. For this purpose ventilation holes are punched in both the inner and outer members of the sash. During the winter these holes permit a circulation of cold dry air near to the inside surface of the glass so that the possibility of forming of frost or sweat is reduced to a minimum. In the summer these openings may be closed by means of a small slide which is a part of the sash setting. When these holes are closed in this way the front is as nearly as possible proof against dust.

Following closely after the introduction of metal setting for the plate glass of store fronts, there came many improvements and refinements in show window lighting arrangements, background construction, signs, awnings and other accessories that are essential to the attractive appearance of a store front. In the old days if show windows were lighted with electricity, in most cases the lamps were suspended from the ceilings in such positions that they threw a repelling glare into the eyes of anyone passing. This is all changed now, for it has been shown that the most efficient results are obtained when the lamps are hidden from view, the light being thrown onto the goods exhibited rather than into the vestibule or into the eyes of people who stop to view the merchandise displayed. Merchants have learned full well that light attracts and that properly illuminated show windows make many future sales during the evenings when the stores are of course closed.

When a marquise is not used, an awning in many cases must be put up to shade the store front. The various types of frames and adjuncts now on the market entirely eliminate the necessity for the ugly vertical and horizontal braces that formerly were required to hold awnings in place. The awning crank box is now being used less and less, because its appearance is objectionable and there are other more satisfactory methods of rolling up an awning.

Many concerns have specialized in the manufacture of ornamental signs. Others have devoted their attention to the building of window backgrounds that are beautiful, yet not so elaborate as to detract from the merchandise displayed in the windows. Rich marble and bronze grilles have come into quite common use for bulkhead construction. Tiles of many different kinds and patterns are available for entrance and vestibule floors. Ceilings over entrances, instead of being flat and straight across, as was almost the universal custom until recently, are now often arched or vaulted to conform to the style of architecture employed throughout the building.

The result of all this activity and development in the designing of store fronts has given us in this modern day and age the most practical type of commercial store front in the world, with the best of the world's materials at our command. These facts, combined with the desire for "up-to-dateness" on the part of the modern business man, which in turn is founded upon the homely but basic truth "it pays," have made and will continue to make possible store fronts which are sources of pride to the architect, his client and to the entire community.



Large Extent of Show Window Space on Plot of Average Width. Area Left for Occasional Use of "Island" Displays

Showcase and Counter Arrangement

By HARRY F. SIPPLE

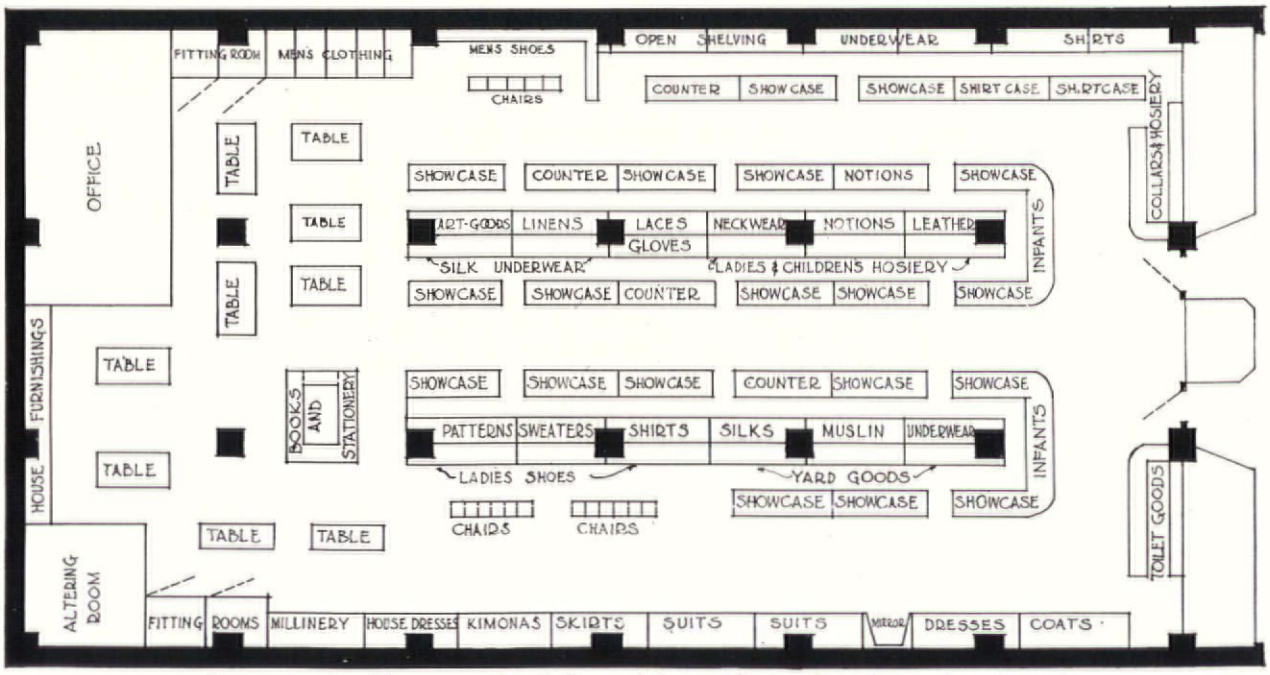
THE designing and planning of store fixtures are coming more and more within the sphere of the architect. In previous years the small merchant depended entirely upon himself and the store fixture salesman to plan and design his store, and as a result, if a competitor opened a shop in the immediate vicinity the design and general lines of his fixtures were in detail the same. Today not only the large department stores but the small merchants as well are retaining architects to lay out and design their display fixtures, which gives each store an individuality of its own. Last year in New York alone more than $30,000,000 was spent by merchants in every kind of business for store fixtures. It is estimated that about $90,000,000 worth of fixtures was used in the whole United States, but of this amount it is safe to say that only half was designed by architects.

In laying out and designing store space it is always good policy for the designer to study the needs of the merchant. By this is meant consideration of the kind of people catered to, the amount of merchandise carried in stock, and the general character of the location. For instance, in fitting out a small department store, something like that the plan of which is shown herewith, the merchant did quite a large business in men's furnishings and devoted one whole side of his shop space to this line of goods, while another merchant in the same neighborhood, who had a store about the same size, devoted only one-quarter of the space to men's furnishings.

The accompanying plan is considered ideal for a small general store, as the various departments are compact and all the goods are on display. As the visitor enters the store, his attention is attracted to the two large round corner showcases, each equipped with one plate glass shelf and electric reflectors. These cases, as well as all the other showcases in the store, are 40 inches high and 24 inches wide. The three aisles are sufficiently broad to give an unhampered approach to the rear of the store. On the right-hand side, directly back of the show window, is a length of shelving for men's hosiery and collars with a round corner showcase for the display of neckwear in front. Running along the wall are shirt and underwear cabinets. The purpose of these is that all the merchandise may be on display and assorted in various sizes. Adjoining the underwear cabinets is a length of open shelving for nightshirts, belts, etc. The men's shoe department comes next. The shelving used is spaced for two boxes in height. The men's clothing department is equipped with five clothing cabinets. These cabinets have pull-out hangers and are enclosed with glass doors, and adjoining the cabinets are two fitting rooms.

In the center aisle specially constructed cabinets are made for the display and stock of art goods, linens, laces and ribbons, women's neckwear, notions and leather goods. These cabinets have lifting, receding doors. The opposite side has open shelving for women's and children's hosiery, a glass front drawer cabinet for gloves, and a receding door section for silk underwear. Specially made floor showcases are used around this section for notions, ribbons, etc.

In the center of the store on one side are cabinets for muslin underwear, silks, waists, sweaters and



Suggestion for Planning a Small General Store (Scale: $\frac{1}{16}$ inch equal to 1 foot)



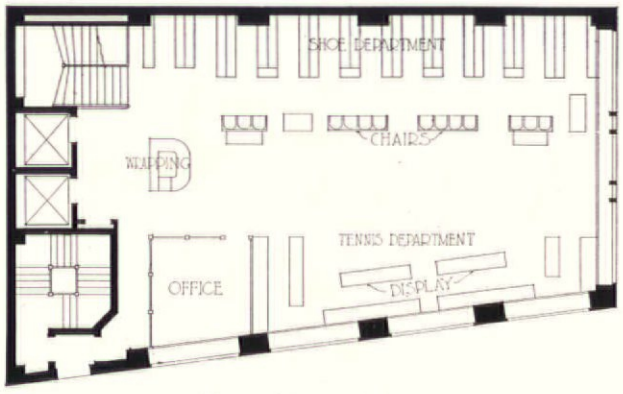
VIEW OF A SALES FLOOR, SHOWING COUNTERS AND WALL CASES



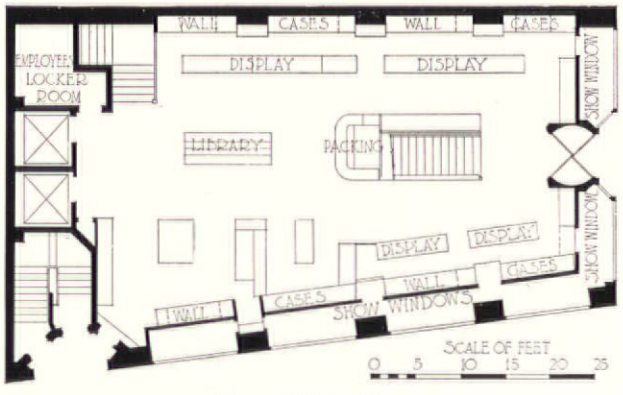
EXTERIOR, STORE FOR SALE OF SPORTING GOODS, NASSAU STREET, NEW YORK
BENJAMIN WISTAR MORRIS AND LOUIS S. WEEKS, ARCHITECTS

patterns, while the other side is devoted to yard goods and women's and children's shoes. Here also are specially built showcases and counters. Back of the window on the left-hand side of the store is located the toilet goods section. This entire side of the shop is given over to women's ready-to-wear garments, and millinery. In the rear of the store a center counter is provided for stationery and books. The house furnishing department, office and alteration room, also in the rear, complete the shop layout.

In designing a drug store, if the cornice line of the fixtures is carried around the entire room on an even line a very attractive effect is produced. In the accompanying plan, there is nothing shown on the right-hand wall except what is known as an "English buffet case" and telephone booths. The telephone booths are placed in the rear so as to compel the patron to walk the full length of the store, because if the cases are attractively arranged it may mean a sale before the person who came in only to use the telephone leaves. On the left-hand wall are a soda fountain, tobacco wall case, patent medicine section, cigar showcase, candy showcase and the wrapping counter. On the rear wall is open shelving with built-in sink and drain boards. The prescription section has a display front for perfumes, powders, etc., and is connected by arches to the telephone booths on the right-hand side of the store. The patent medicine section is on the left-hand wall. Soda tables in the center of the room complete the



Plan of Second Floor



Plan of Main Floor

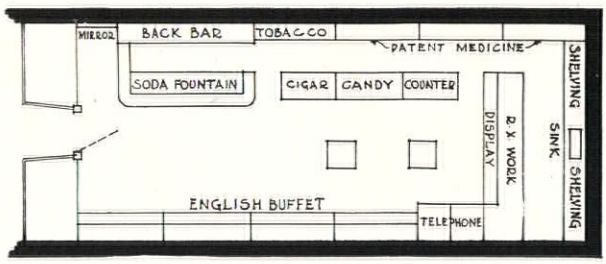
Shop of A. G. Spalding & Bros., New York



View of a Well Arranged Floor for Sale of Men's Furnishings

layout of the drug store.

If the designer is working on a jewelry store it is advisable, if the shop is a large one, to have a diamond room in the front on one side and a watch repairing department on the other. Showcases for jewelry laid out in horseshoe form in the center of the room make a fine appearance, and the silver and flat wear are carried in wall cases running on each of the side walls. Great care should be taken by the designer to see that everything in the store harmonizes, since poor taste in painting or decorating the walls or ceiling would spoil the appearance of the entire store.



Suggested Plan for a Drug Store

Should one be called on to design a sporting goods store, unless the designer has had previous experience I am afraid he would have quite a job on his hands, since every article of any size requires a different kind of wall case to display it; so it would be well to secure as much information as possible from store fixture manufacturers who make this class of fixtures, before starting to lay out this type of store, in order to make it successful.

There has recently been completed by Benjamin Wistar Morris and Louis S. Weeks, architects, what is considered one of the finest sporting goods stores in the country. This is the store for A. G. Spalding & Bros., Nassau Street, New York. From the window backgrounds to the third floor it was designed by the architects and is thought to be the first store of its kind for which architects were employed to design all the display equipment. The basement of this store is devoted to baseball, football, skates and bargain departments. The first floor has specially built cases for sweaters, jerseys, bathing suits, clothing, etc. Specially built cases for the display of tennis racquets and shoes are found on the second floor. On the third floor the golf enthusiast will find clubs, bags and everything needed for this sport, also the gymnasium department, as well as polo and various other departments for sporting equipment.

It is suggested that when architects design store fixtures they pay particular attention to the window backgrounds, as the show windows are one of the merchant's best assets, and if attractive they will sell more merchandise than any salesman in the store. Attention must be given to the class of merchandise to be displayed, since a French designed window back which would be just right for a women's ready-to-wear department would not be the proper setting for the display of jewelry. Care and thought expended on the designing of fittings for shop windows and shop interiors are abundantly worthwhile since, in the first place such fittings when once installed are likely to be used as long as the shop exists, and also because nothing is more important to the appearance of the store than fittings which are so constantly seen. They can make or mar the entire shop.



Interior of a Jewelry Store; Wall Cases for Silver; Showcases for Jewelry

Heating and Ventilating of Shops and Stores

By EDWIN L. COLE

THIS is a widely varying problem, ranging from simple to complex with the character and size of the particular project. All stores of course require heat, but not all stores need mechanical ventilation. Generally speaking, the small or medium sized specialty stores, such as drug, men's furnishings, trunk stores, etc., need not be ventilated as they are rarely crowded; the area is large compared with the number of occupants assembled at any one time, and the entrance and exit doors furnish ample means in most cases for thorough airing out, this in contrast with stores of large floor area in proportion to the outside exposure, in which effective airing out is impossible, as in department stores.

The superiority of vapor heating over the old style low-pressure steam system is so well established that it needs little comment here. Assuming a choice of system that is durable and simple, vapor heating is much more economical, and is free from the limitations so frequently experienced with low-pressure steam. Overheating is one of the evils common to the haphazard treatment of stores, and one that is least generally recognized. It is a source of discomfort, a menace to health, and a deliberate waste of fuel. Therefore it is of major importance, in designing the plant, to give this proper consideration. It is necessary, of course, to have sufficient heating capacity for the severe cold weather, but this will overheat the store much of the time if not properly controlled. Therefore it is essential that all the heat provided should be adequately controllable in some simple way. In the small store, with few units of radiation, it is wholly practical to depend upon the modulating supply valves used with a vapor system to heat each radiator as much or as little as the outside temperature demands. It will be found very helpful and a worthwhile economy to display a number of thermometers in conspicuous places to give the clerks ample notification of the temperature or the need to control it, and to make some one person responsible for the prevention of overheating. During the war many firms practiced this fuel-saving measure, and savings in fuel consumption as high as 20 per cent were common, much to the surprise of those who tried it. In the larger stores, however, particularly department stores, hand regulation of temperature is impractical, and in all cases the cost of automatic temperature control equipment is fully justified. This should be as simple as possible and the best and most durable equipment obtainable. It is a good investment and not in any sense a luxury.

The location and type of radiation depend upon the character of the store and its equipment and fixtures. The cheapest and most efficient type is direct radiation installed as near the cold exposures as space will permit. In specialty shops with artistic interior treatment, where appearance is important, an excellent arrangement is suggested in Fig. 1. This is a circulating, indirect stack, taking its air from the floor down to the indirect radiator casing, and discharging heated air through a duct built into some available space in a case, cabinet or shelving, the discharge outlet being through the top of the case, or if this is too near the ceiling, then out through the face well above the headroom. This method draws the coolest air in the room from the floor and brings the warmer air at the ceiling down to the floor.

The treatment of the main entrances of small stores is always a problem, as there is not always room for an ample vestibule. Revolving doors are a great assistance in preventing cold drafts and are economical of heat, as they admit a minimum of cold air. It is necessary that space be provided for ample direct radiation close to such entrances. In large department stores there is opportunity for providing deep vestibules and sufficient justification for them. They are a distinct economy from a heating standpoint and make possible the control of cold air currents. They should be at least the full depth of the show windows, and the sides form very effective show window space. It would seem that the tendency to take shelter in vestibules is encouraged by the management of many large department stores, as it insures inspection in comfort and at leisure.

With such an entrance several methods of heat treatment are possible that make all the air entering the store warm and fresh; this is particularly true where revolving doors are used. Circulating indirect stacks, located directly under the vestibule, discharge through large grilles in the sides of the vestibules in the space under the windows near the inner doors. The air supply to these stacks comes through grilles in the outer halves of the same spaces. This tends to draw the entering cold air into the downdraft grilles, to some extent working against its direct flow toward the inner doors; and the flow of hot air out into the vestibule near the inner doors, in large volume at high temperature, is drawn into the store at a comfortable temperature. This treatment gives insurance against freezing, always a possibility with direct radiation. The temperature of vestibules should never be controlled automatically, for the same reason.

In case the management objects to large vestibules, it is necessary to have a large amount of direct radiation in as close contact with the path of cold drafts as the arrangement of the store will permit. It will be a makeshift arrangement at best. One treatment that has met with some success in such cases is to construct a glazed partition in the aisle opposite the entrance doors, with a large amount of direct radiation on the side toward the doors. The cold air rushing in comes in contact with the hot radiators, and being forced to change its direction,

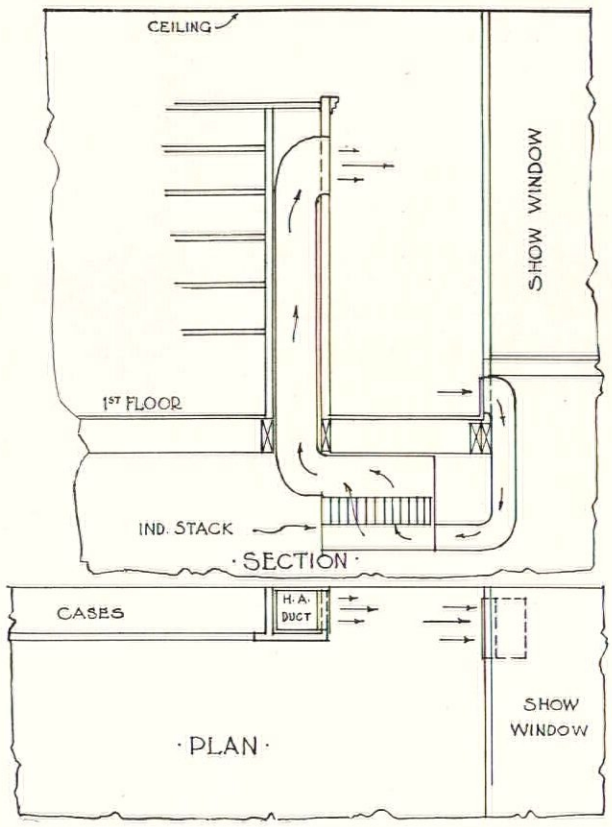


Fig. 1. Suggestion for Air Circulation

becomes to some extent mixed with the hot air in this space. In the case of small vestibules with outer and inner doors, space might be provided between the inside doors and banks of narrow, high wall radiators installed in these spaces. Revolving doors are almost an essential in the two latter cases. They are very effective mixers of hot and cold air.

It is important to prevent show windows from "steaming" and freezing when the show space is open to the store. Such a condition requires some effective heating surface as close as possible to the glass to evaporate the moisture in the air faster than contact with the cold glass can condense it. A number of methods have been successfully employed. Coils of pipe may be installed immediately below the floor of the show space with perforations or slots in the floor close to the glass line, permitting heat to come up over the surface of the window. Space may be provided for a large percentage of the radiation required for heating to be installed near the windows just outside the show space. If the show windows are partitioned off from the store and kept at a low temperature, there is less moisture in the air, as these spaces are little affected by the air in the store; and the more equal temperature between the inside and outside air prevents the cold glass from condensing what little moisture there may be.

The air conditioning of very large floor areas with proportionately small outside exposures, as in the large department stores, is a much more complex problem than in the small shop. There is the tendency to overcrowd. Also shoppers spend more time in such stores and feel the effects of poor air conditions much more. There is ample testimony from both men and women shoppers to establish the fact that the condition of the air in the average department store is uncomfortable and enervating, tending to make shopping a wearisome ordeal despite its manifold fascinations. Without doubt, if the air in any large department store were kept fresh and stimulating, the contrast with the average condition would be so noticeable that it would occasion wide and favorable comment.

The first step in the solution of this problem is to determine what makes the air so uncomfortable, and having arrived at the cause, the remedy is at once simpler of solution. As previously indicated, overheating should be placed first on the list of causes. Most stores are much too hot for comfort and health. Nothing is more enervating than too much heat. Second in importance is vitiation. Stale or foul (unfresh) air at any temperature is unwholesome and quickly affects one with a sense of discomfort, with good reason. Commenting on the first of these causes, overheating, there is no excuse for this, regardless of the fact that it is so general. No interiors of the character under discussion should ever be heated to over 68°, and even a lower temperature would be found more wholesome for the clerks and certainly for the shoppers if the temperature were kept uniform, not allowed to rise appreciably at times and then be cooled down again. The first step, then, is to control the temperature of the air to a minimum, comfortable for clerks who are lightly clad and must be the deciding factor of minimum temperature. It may be assumed that the system has been properly designed for a possible 70° in the average coldest weather. Automatic temperature control apparatus is the only means available for holding the temperature always at the desired point. Such equipment is indispensable to the effective solution of the problem. If the management of any department store could have demonstrated for it the saving in fuel consumption, through using only what is necessary to keep the areas constantly at the desired minimum temperature, and the effect on sales efficiency of the increased mental and physical alertness of the clerical staff, to say nothing of the effect on the public, it would consider such equipment a vital necessity. And it is quite simple to accomplish it with the highly developed equipment available.

The second cause is not so simple to treat. It is an accepted fact that the one great natural purifier of the air is the sun; that the sun's rays must shine directly through and into air to accomplish its purifying result. Vast areas in this type of building are never reached by the sun, and depend almost wholly on artificial light. Furthermore, the area of the floors in proportion to the area of windows that can be opened is so great that buildings of this class largely contain the same air day in and day out, there being only a slight natural air change as compared with other types of buildings. Morning finds the

same stale, contaminated air in the building that was left there the night before, particularly in the winter. Effective "airing out" is practically impossible. Nor can the sun get at this air except in a very small part of its area. This is particularly true in basements and even on street floors some distance from the entrance.

It is out of the question to attempt to describe in this article the various applications to such a problem of air handling equipment except in a general reference to a few of the possibilities.

Exhaust. Elevator shafts must be enclosed. This makes possible the provision of a separate enclosed space or shaft at one end of each battery of elevators, fireproof and extending from the basement floor to a point well above the roof. Its area must be ample for the work it will be expected to perform. Suitable openings into this at floors or ceilings or both, depending on the particular space treated, can be provided with a duct from each extending up this shaft a sufficient height to prevent communication between floors. The tops of these shafts should be provided with hoods suitable for the egress of air and the exclusion of weather. Such shafts could be made to serve an appreciable portion of the area. Whether they would be sufficient exhaust for the whole, or whether it would be necessary to provide additional mechanical exhausts for portions remote from them, are questions that can be answered only by the study of each individual case. If it were decided to use both methods, care must be exercised to avoid the possibility of one working against the other; this is another problem for individual study.

Fresh Air Supply. Two major methods of effective supply are available, but their application must needs be so diversified and so dependent on the design and arrangement of the building that suggested treatment must be general.

Central Fan System. A special room is required for the fan driving motor and heating coils. For large floor areas it may be necessary to have more than one fan, particularly if both the basement and the first floor are to be served. These apparatus rooms may be located anywhere in the basement that space can be allotted for the purpose, but it is some advantage to have them not too far removed from the boiler plant. This is not a difficult problem usually, as they can be located in parts of the building remote from sales space. The source of fresh air supply should be the roof, and one or more shafts provided to conduct it to the necessary points for warming and distribution.

Distribution Ducts. It is an entirely different matter to find suitable spaces for the trunk line and branch supply ducts through the rooms; unfortunately, many forms of building frames do not lend themselves to concealment of ducts. If it were not for this it would be a simple matter as a rule.

At this point let us understand clearly what is really required in the way of ventilation. For years it has been supposed that if the air in a room were

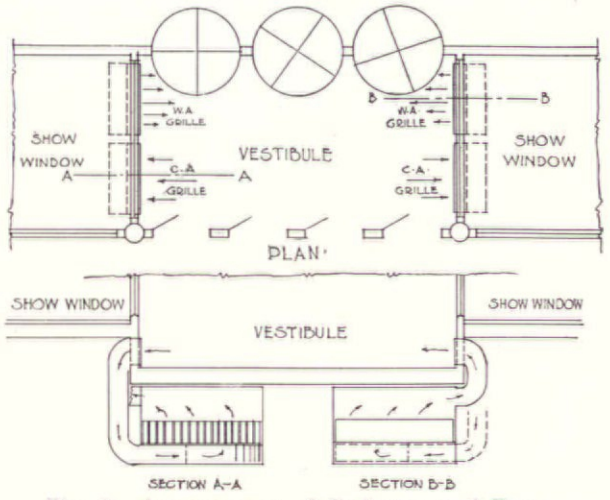


Fig. 2. Arrangement of Radiators and Doors

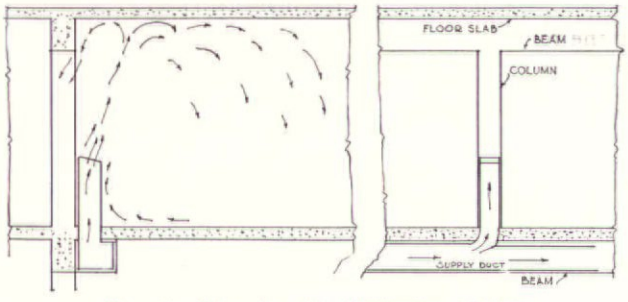


Fig. 3. Plan for the Diffusion of Air

changed so many times an hour all that was necessary or even desirable had been accomplished. This is a fallacy that is still clung to in many quarters, but it will never solve the problem of the large department store. While it is true that it is necessary to remove stale air and replace it with fresh outdoor air, that is but a small part of the problem. The important factor which is less commonly realized and usually neglected is circulation or movement and diffusion within the room. To be "alive," stimulating and refreshing, all the air in the room must be in active motion. Not in "paths" or currents that will cause uncomfortable drafts, but with a "breaking up" or mixing effect, the air in the room being sprayed constantly with the incoming air all over the room. This can be done successfully only by introducing the air at a high velocity in a vertical direction with the effect indicated by the arrows in Fig. 3. The inlet orifices must be distributed properly to avoid confliction; the velocity must be in proper relation to the distance of the inlet orifice from the ceiling, and all orifices just the right distance up from the floor to produce the aspirating effect shown in Fig. 3. The importance of this last feature cannot be overestimated. It makes the difference between success and failure.

To give a concrete example of one good method of designing and concealing ducts, we will assume a framing construction favorable to our purpose: mill construction of concrete slabs with supporting beams all running in one direction and spaced about 8 feet

on centers, with square columns under the beams. We will now attempt to describe the design of a supply duct system for a portion of the floor area. At some point available within this portion install a vertical main duct to supply all floors to be ventilated. On the ceiling of each floor install a branch from the vertical duct located beside one beam and furred in with it to give the appearance of a wide beam. From the top of this duct a vertical branch will be run up through the floor against each column above and furred in with it. Each of these branches will extend not less than 4 feet above the floor and terminate in an open end pointing up to the ceiling. Each of these supply outlets will be made to serve about 90 square feet of floor space. The velocity through each outlet will be proportioned to its distance down from the ceiling, possibly 800 feet a minute. Referring again to Fig. 3 we see the effect of this treatment on the air in the room. A slight air pressure is thus created in the room which steadily pushes air toward and out through all exhaust openings and tends to stop infiltration around windows. The temperature of the entering air is automatically controlled to prevent the room temperature from rising above the desired point, and volume dampers installed in the supply ducts should be set to maintain a uniform distribution of air in all outlets. Additional heating surface in the form of direct radiators may be installed, either exposed or encased, to provide for heat losses, these being automatically controlled as already suggested. This treatment, or a modification of it to fit varying conditions, would insure a wholesome, bracing atmosphere in the spaces treated.

Unit Ventilator System. Developments of recent years are the unit ventilators. These stand in the rooms they serve and can be installed against outside walls or against the shafts that conduct fresh air down from the roof. They take their air in at the back, and discharge it vertically as described for the other system. They give the same result in the room and eliminate the supply ducts altogether. They can be automatically controlled as to air temperature, can be operated together or separately, and by switching on a damper the air in the room can be re-circulated through them for warming up in the mornings and after holidays. They are compact, flexible and effective and an excellent solution of the problem wherever applicable. They are supplied with piping like a direct radiator.

Basement Sales Rooms. The "bargain basement" is an institution that has probably come to stay, and it has introduced a new problem to the ventilating engineer. It is wholly dependent upon mechanical ventilation, is often crowded to the limit of its capacity, and is an extreme air conditioning problem from every standpoint. Some heat is of course necessary, but this need is small in comparison with that of ventilation, and in the writer's judgment should be introduced with the fresh air. It is necessary to warm the entering fresh air sufficiently to prevent discomfort, and this heat alone will usually be more than sufficient as the volume of air supplied must be large. Here again it is important to use automatic temperature control, as overheating is one of the chief problems in such basements. The thermostats should be graduated action type, generally cutting down or increasing the amount of heat introduced into the entering air as conditions require.

Basement Exhaust. Not only foul air but excess heat must be disposed of, and it is advisable to design the exhaust ducts with ample outlets at both the floor and at the ceiling, as at times the animal heat alone will cause overheating, particularly in mild or warm weather. The ceiling outlets should be fitted with dampers that normally will remain closed, but when opened will close off the ducts leading up from the floor outlets. These dampers should be automatically controlled from the same thermostats that control the heat supplied to the entering air, the thermostats being compound and arranged to first close off the heat and then, if the temperature continues to rise, to open the ceiling outlet dampers.

It would be a distinct advantage to have the main ducts run in trenches under the basement floor, with the supply branches extending up about 4 feet above the floor as described for the upper floors. But if this is not possible the ducts may be run on the ceiling with the branches so located (over cases, etc.) that they may branch down from the main duct at an angle of about 45° from the ceiling for a short length, and then sweep upward, discharging on a 45° angle toward the ceiling. Here again it may prove advantageous to use ceiling type unit ventilators and do away with the ducts. If the floor beams all run in one direction, the ducts can run beside them and not interfere with headroom, the appearance being the chief objection. But if the framing for the floor introduces cross beams cutting the ceiling into square bays, the ducts must be below these cross beams which will make them uncomfortably low. It will be seen that it is worth while to give careful thought to the ventilating design before determining the floor framing on any floor.

It seems appropriate to add a word here regarding the operation of the ventilating equipment. While the building is being cleaned the supply system should be shut down and the exhaust system operated to full capacity. At all other times, when the store is closed, the exhaust ducts should be closed tight to conserve the heat and prevent back drafts of cold air into the building. The entire system of supply and exhaust ventilation should be operated to capacity for at least one hour before the store opens for business every morning.

Little attempt has been made in this article to describe all the applications of heating and ventilating design that it might be possible to utilize. The writer's purpose has been more to bring out the fundamentals of these two problems, and to offer in some detail a description of at least one method of treatment that in his judgment is better than many others which are more or less in use.

Three Modern Parisian Shop Fronts

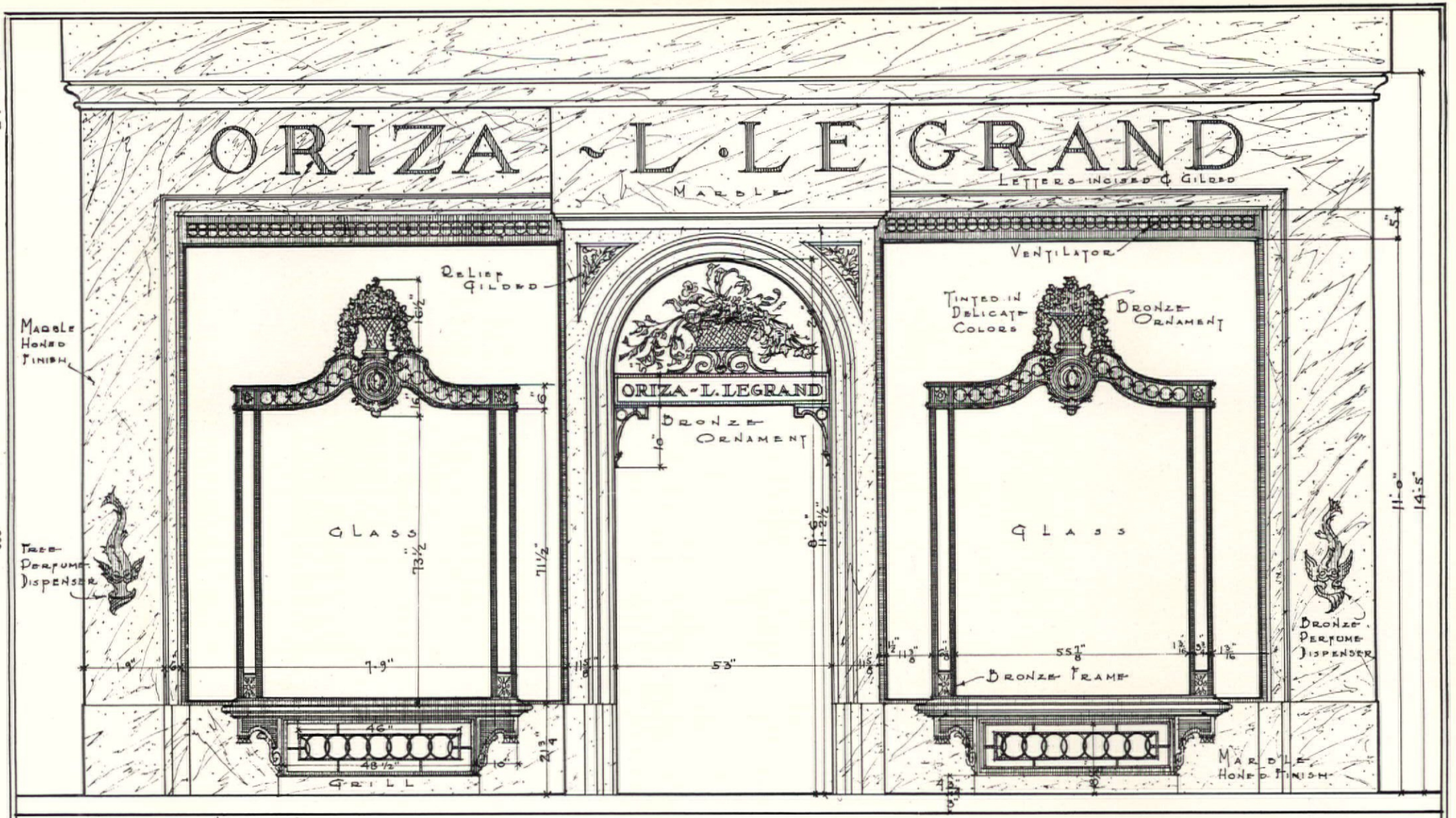
With Measured Drawings

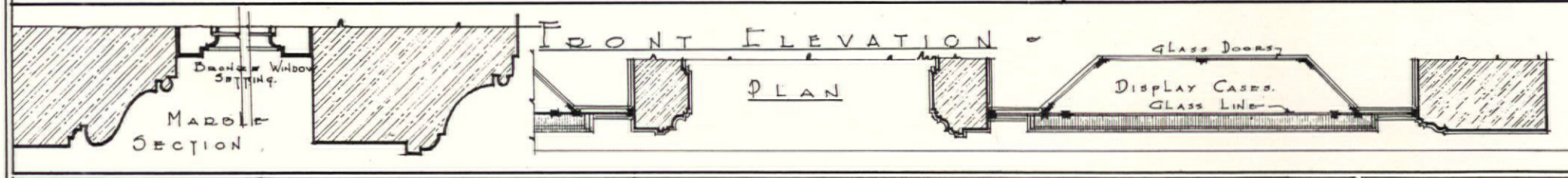
By George Leighton Dahl

WITH the rumbling of steel and the groan of chains, the barricade is lifted; what appeared to be a cold and cheerless prison has now been transformed into an attractive shop front. Every morning and night the rolling steel shutters are raised and lowered to guard the merchant's shop. "Plate glass offers no protection," he says. Possibly the days of the Bastile are still in his mind. However, with the advent of modern business methods and advertising, the Nemesis of the rolling steel shutter seems to be near; in fact, its passing is accomplished, for as we promenade the avenues and boulevards we are attracted by the shop windows now relieved of the encumbrances of other days.

Paris, the city of fashion and art, is essentially also a city of individual exclusive shops, which cater to the thousands of visitors and buyers from all parts of the world. The shopkeeper is constantly endeavoring to invite their attention. In order to properly present his wares he well appreciates the necessity of creating an outward distinctive atmosphere, an architectural symbol, an index to his business.

EDITOR'S NOTE. Successful retail merchandising involves primarily a series of visual impellents which hold attention for a sufficient period of time to establish the dual connotation of attractiveness and dependability. With camera and measuring tape George Leighton Dahl here has interpreted and defined the subtle impulse which good architecture lends to the modern shop fronts of Paris.

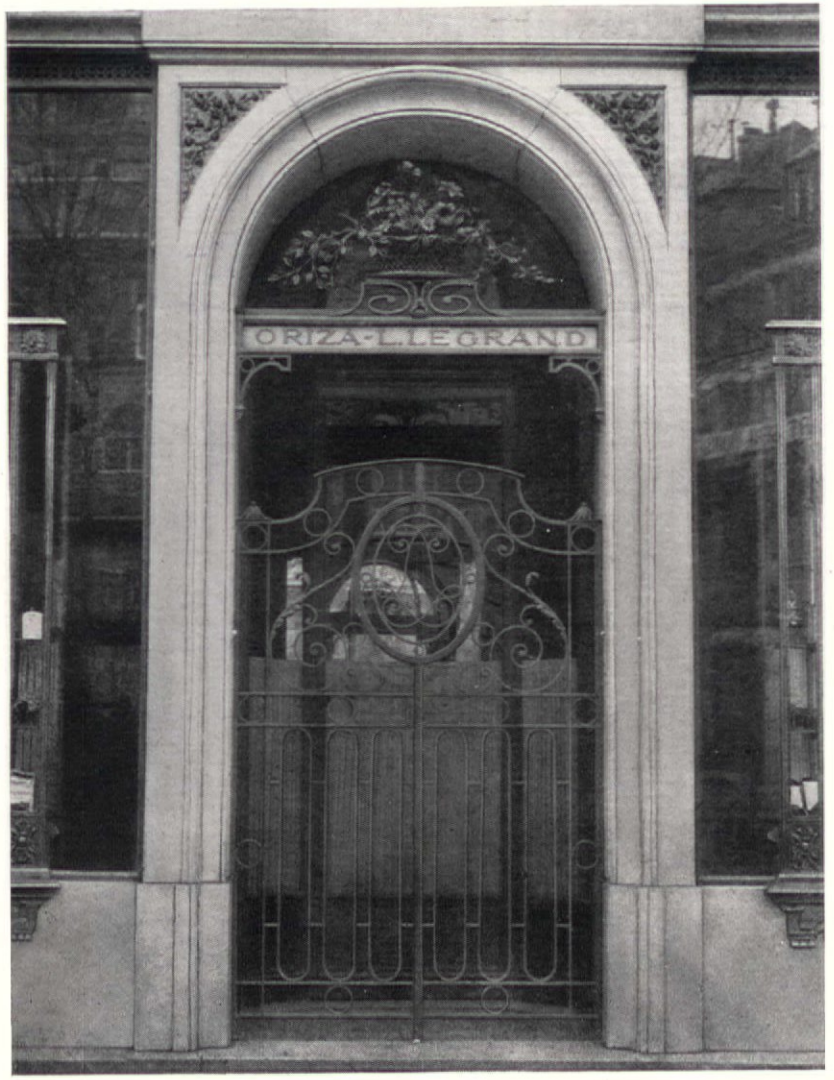


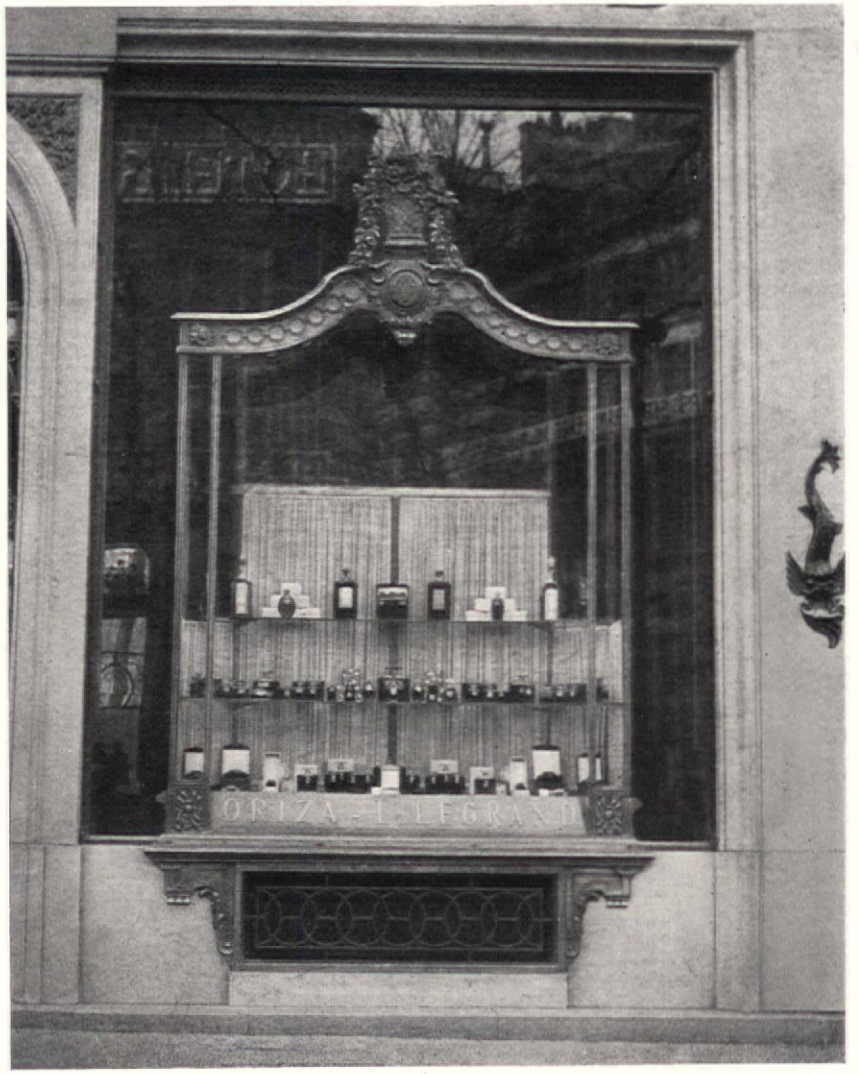


SCALE OF DRAWING
3/8" EQUALS 1 FOOT
DETAIL 1½" EQUALS 1'-0"

~SHOP IN BOULEVARD MADELAINE~ PARIS~

MEASURED & DRAWN BY ~
GEORGE LEIGHTON DAHL
PARIS · FRANCE ~ 1924.



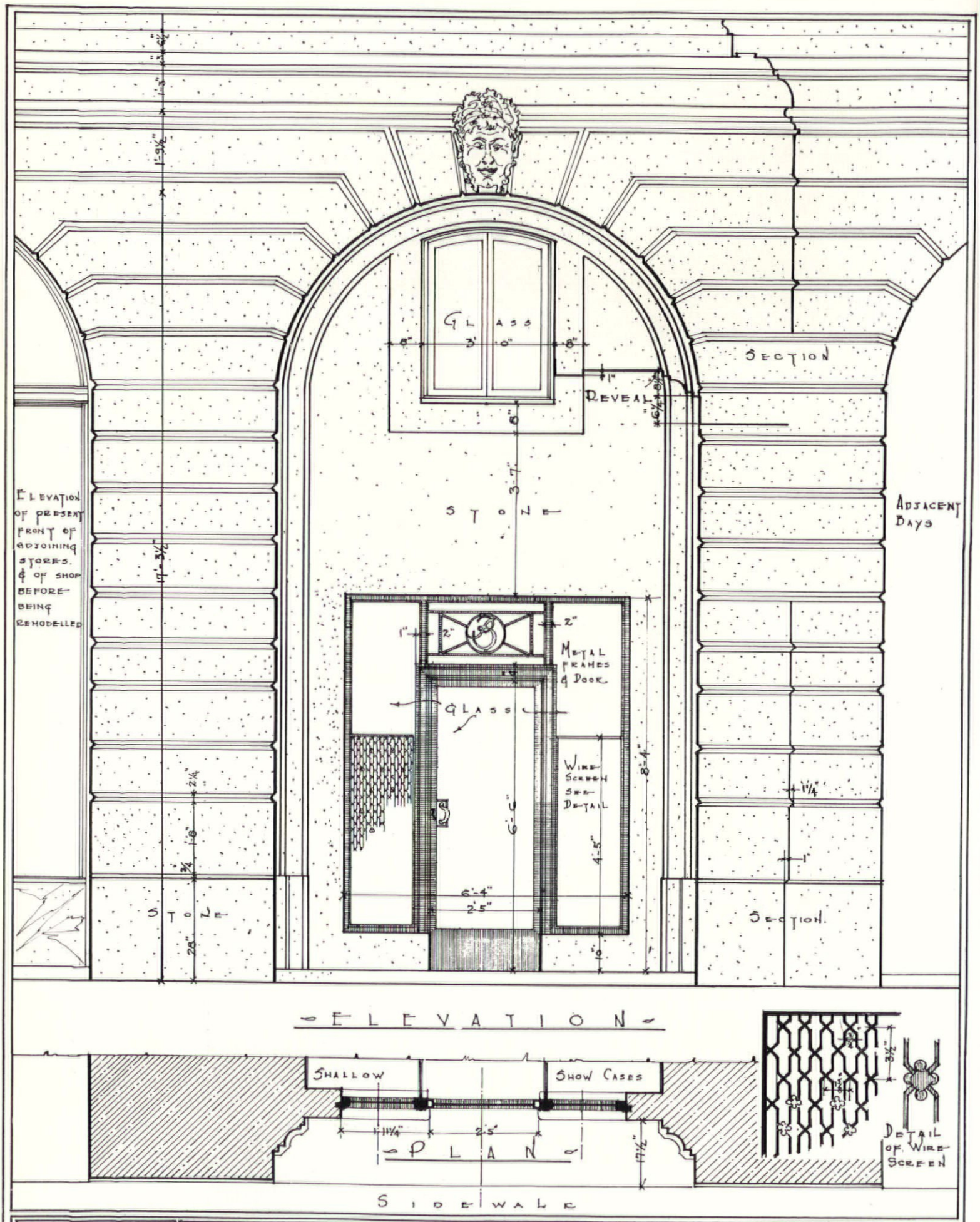


OF the newer shops that grace the *Grand Boulevard* possibly the most interesting is that of Oriza L. Le Grand, dealer in choice perfumes. It is a delicate little shop, an artistic creation where the handling in the combination of marble and metal is very successful. The material of the structure is a honed-finished siena marble with gold metal bronzework and hammered metal flowers, slightly tinted. The blending of colors and material, tempered by reserve in design, stamps this shop as distinctly expressive of its purpose. An interesting feature is the application on the pilasters of the facade of two bronze dolphins which dispense perfume gratis to the public. Incidentally, these dolphins are very busy.

The Perfume Shop of Oriza L. Le Grand

Grand Boulevard, Paris

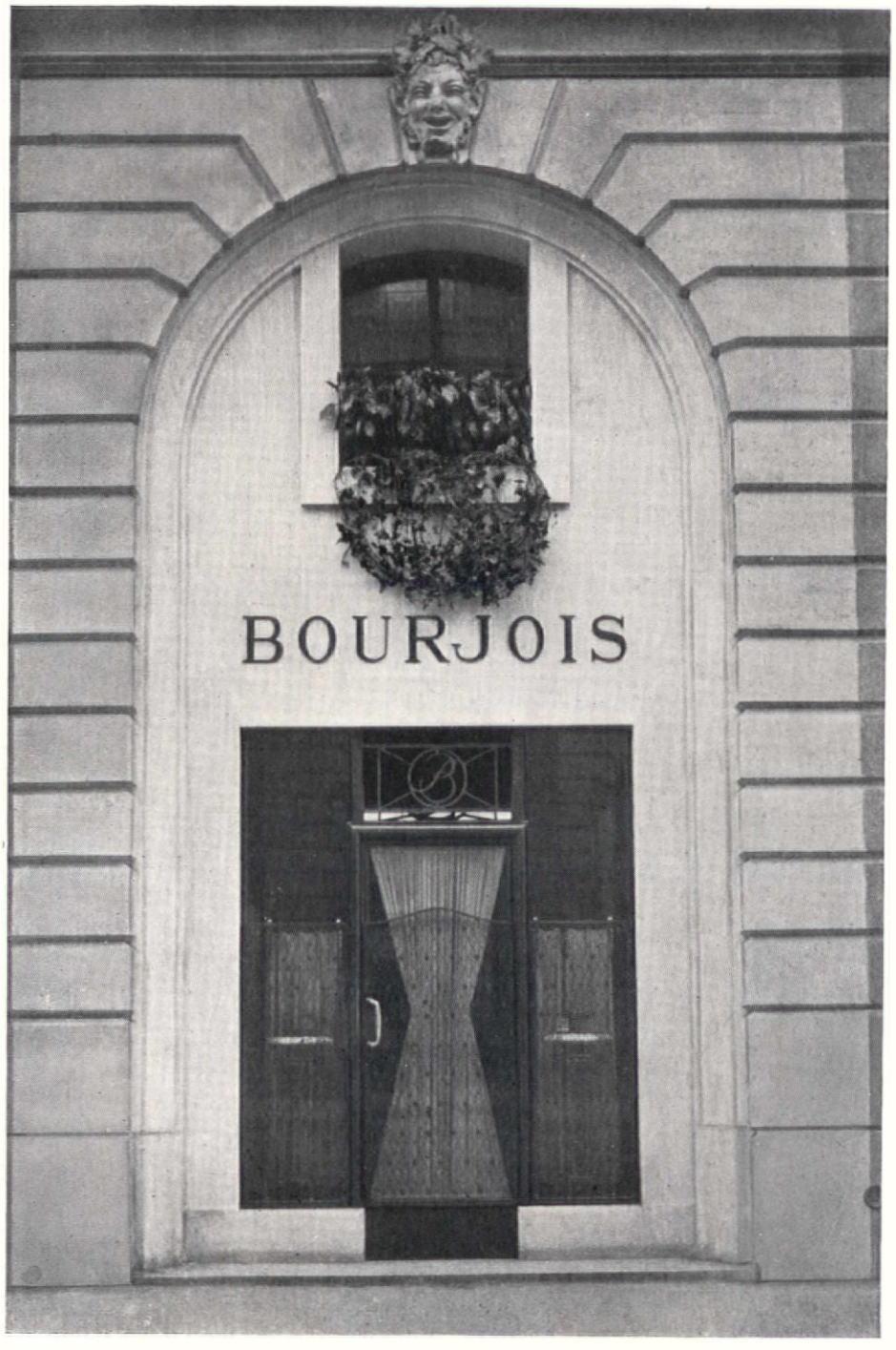
Text and Measured Drawings
by George Leighton Dahl



REMODELLED FRONT
SCALE 3/8" = 1'-0"
DETAIL SCALE 1½" = 1'-0"

SHOP IN RUE DE LA PAIX-PARIS.

MEASURED & DRAWN BY
GEORGE LEIGHTON DAHL
PARIS • 1924

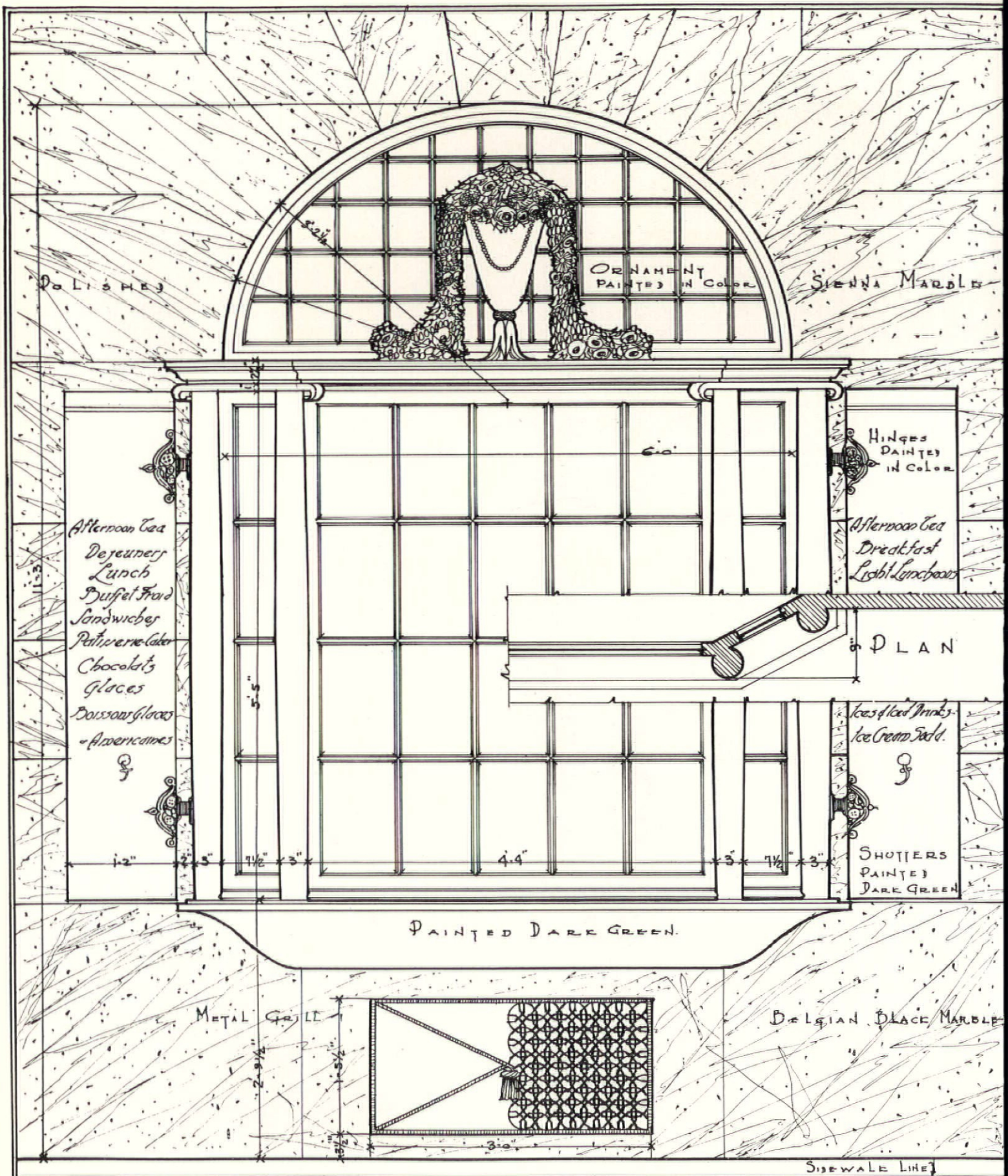


The Jewelry Shop of M. Bourjois

27 Rue de la Paix
Paris

Text and Measured Drawings
by George Leighton Dahl

CONTINUING along to *No. 27 Rue de la Paix*, this fashionable avenue, long famous for its jewelers', perfumers' and dressmakers' establishments, is the shop of Bourjois, dealer in fine jewelry, occupying one of the arches of a continuous arcade adjacent to the *Place Vendome*, designed by J. Hardouin-Mansart in 1708. In the designing of this shop difficulties were many, as government restrictions forbade the altering of the structural or outward appearance of this old *monument historique*. With these limitations the architect succeeded very well in surmounting the obstacles; as will be noted in the drawing, the structural and outward appearance is entirely intact. Attention was devoted to a simple dignified design within the arcade, of white limestone with black metal window and door frames. The whole composition is tied together by a series of jamb mouldings; the treatment is very flat, affording a pleasing contrast to the heavy pier and arch rustication. This shop is one of the most striking on the avenue.



MATERIALS — POLISHED SIENNA MARBLE ABOVE — BELGIAN BLACK MARBLE

ELEVATION OF WINDOW

BASE & WINDOW WOOD WORK PAINTED; WHITE COLUNNETES; DARK GREEN TRIM. ORNAMENT IN COLOR

SCALE 3/4" = 1 FOOT

SHOP IN RUE ROYAL-PARIS

MEASURED & DRAWN BY GEORGE LEIGHTON DAHL PARIS, FRANCE — 1924



Royale Tea Rooms

Rue Royale, Paris

Text and Measured Drawings
by George Leighton Dahl

DUTCH COLONIAL has had its introduction into Parisian life. The facade of the tea shop in the *Rue Royale* is a happy combination of painted wood and polished siena marble. The character of the design is expressive of its purpose as an inviting *patisserie*. The facade is pierced by two flat circular beaded openings, framed in with four colonnettes on a projecting window sill, crowned by a vase and flower ornament delicately tinted in color, with decorative shutters reminiscent of Dutch influence. In ten minutes you will find yourself seated within, at a table with a pot of chocolate, which is evidence enough of the architect's success in creating an inviting exterior !

Recent Necrology

BERTRAM GROSVENOR GOODHUE

IN the recent passing of Bertram Grosvenor Goodhue architecture lost one of its outstanding figures. Mr. Goodhue was essentially a creator, and therefore he was a student,—one who by grasping the fundamentals of a subject and absorbing its spirit was able to carry its development to where it logically led. This strong foundation of understanding furnished support for a soaring structure of achievement. Without ceasing to be original and at times even daring, there was inherent in all his work a high degree of architectural quality—a character which pervaded his work of the most divergent kinds and which stamped it with the mark of his individuality and genius.

Born April 28, 1869 at Pomfret, Connecticut, he was attracted early in life to the profession of architecture. It was before the days when many excellent schools of architecture which now exist smoothed the path which leads to its profession, and the student who aspired to architecture was obliged to enter as a graduate of the school of experience. Mr. Goodhue's architectural training was begun the day he entered the office of Renwick, and it might be said to have ended only upon the day of his death. As a member of the firm of Cram, Wentworth & Goodhue, later Cram, Goodhue & Ferguson he played a powerful part in leading the advance of that firm to a place in the foremost rank of church architects. When the firm was dissolved in 1914 Mr. Goodhue began independent practice which afforded wide scope to his many-sided genius. Without ceasing to be chiefly a church architect and master of ecclesiastical styles, as represented by the Gothic of St. Vincent Ferrer's and the Chapel of the Intercession or by the Byzantine of St. Bartholomew's, he explored more distant fields, among them the Spanish Renaissance, which with his enthusiasm for Spain and things Spanish he used supremely well. In later work he turned toward fields still more distant;—just where his genius would have carried him will never be known, but any feeling of misgiving or tendency to criticise the daring originality with which he sometimes approached a work was curbed when one remembered the unfailing good taste with which Mr. Goodhue solved difficult problems.

Along with his eminently successful practice of architecture went great skill along certain other lines of work which might be called "collateral." His sketches, many of which were published in book form, show a marvelous grasp upon each of the qualities which enter into the making of excellent sketches, and his work, whether in pencil, pen and ink or some other medium was altogether winning and charming, representing a genius for style as characteristic and marked as that which distinguished his work in the more immediate field of architecture.

But to one who knew Mr. Goodhue there will often come a recollection of one phase of his many-sided personality which was particularly his own;—his encouragement of talent where he knew it to exist or where he supposed it might exist, and his kindness and sympathy toward those possessed of little talent, perhaps none at all, but anxious to "do things." Workers in all the many arts which have to do with architecture,—sculptors, woodcarvers, glass painters, metal workers and others,—will testify to the encouragement which they received from him; editors, writers and other workers in magazine or newspaper fields never appealed to Mr. Goodhue or to his office without receiving that courteous coöperation and unfailing consideration which lightened their labors.

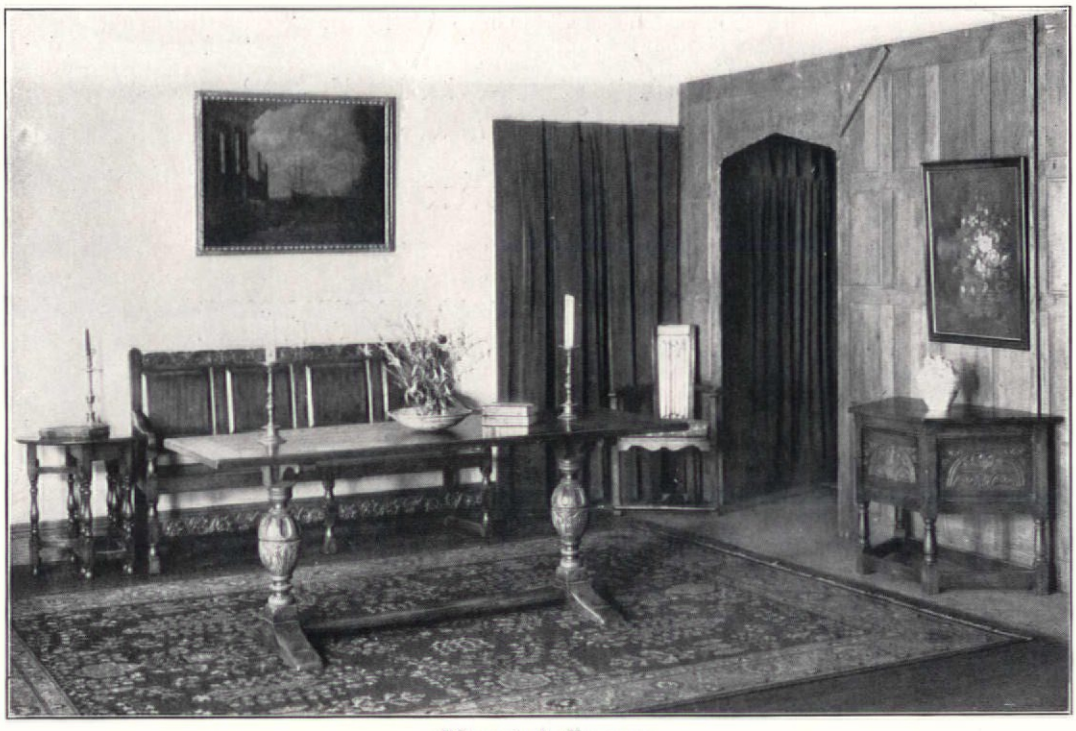
LOUIS H. SULLIVAN

BORN in Boston, September 3, 1856; died in Chicago, April 14, 1924." In these few words there might be condensed the obituary of an architect long identified with the progress which the profession in America has made during the last few decades. Louis Henri Sullivan was essentially an exponent of movement and activity. His was not a reverence for architectural styles as such, but rather an interest in what they taught and particularly what could be adapted to contribute to the evolution of a new architectural type which should be expressive of the present age. The believer in views so pronounced and methods so advanced could not but attract to himself the dissent of many as well as the admiration of others, but he maintained to the last his belief in his theories, and to the end he stood forth as the prophet of the school of architecture which had long been called by his name.

Mr. Sullivan's education was received chiefly in the Boston public schools, and his technical and architectural training at the Massachusetts Institute of Technology and the Ecole des Beaux Arts. He came to Chicago in 1880 and began the practice of architecture, first as a member of the firm of Adler & Sullivan and later in independent practice which he continued until his death. The time of his coming to Chicago was during the height of the period in which Chicago, having already recovered from the effects of the Great Fire, was forging ahead to a position among American cities far beyond the wildest dreams of the pioneers who had settled Fort Dearborn, and this expansion created opportunities which architects were not backward in seizing, and Mr. Sullivan was prominent among those whose interest, vision and enthusiasm encouraged the development of the steel-framed building, the use of which is now almost worldwide. Mr. Sullivan received many honors and medals, one being the gold medal of the Union Centrale des Arts Decoratifs.

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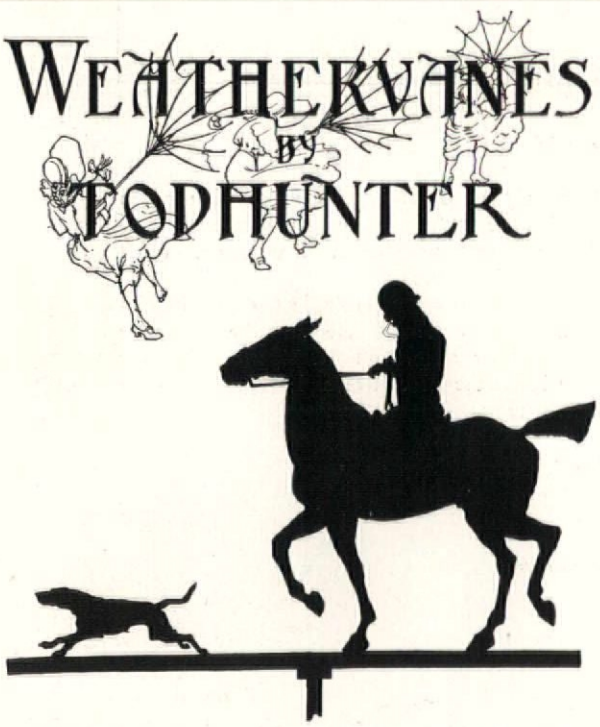
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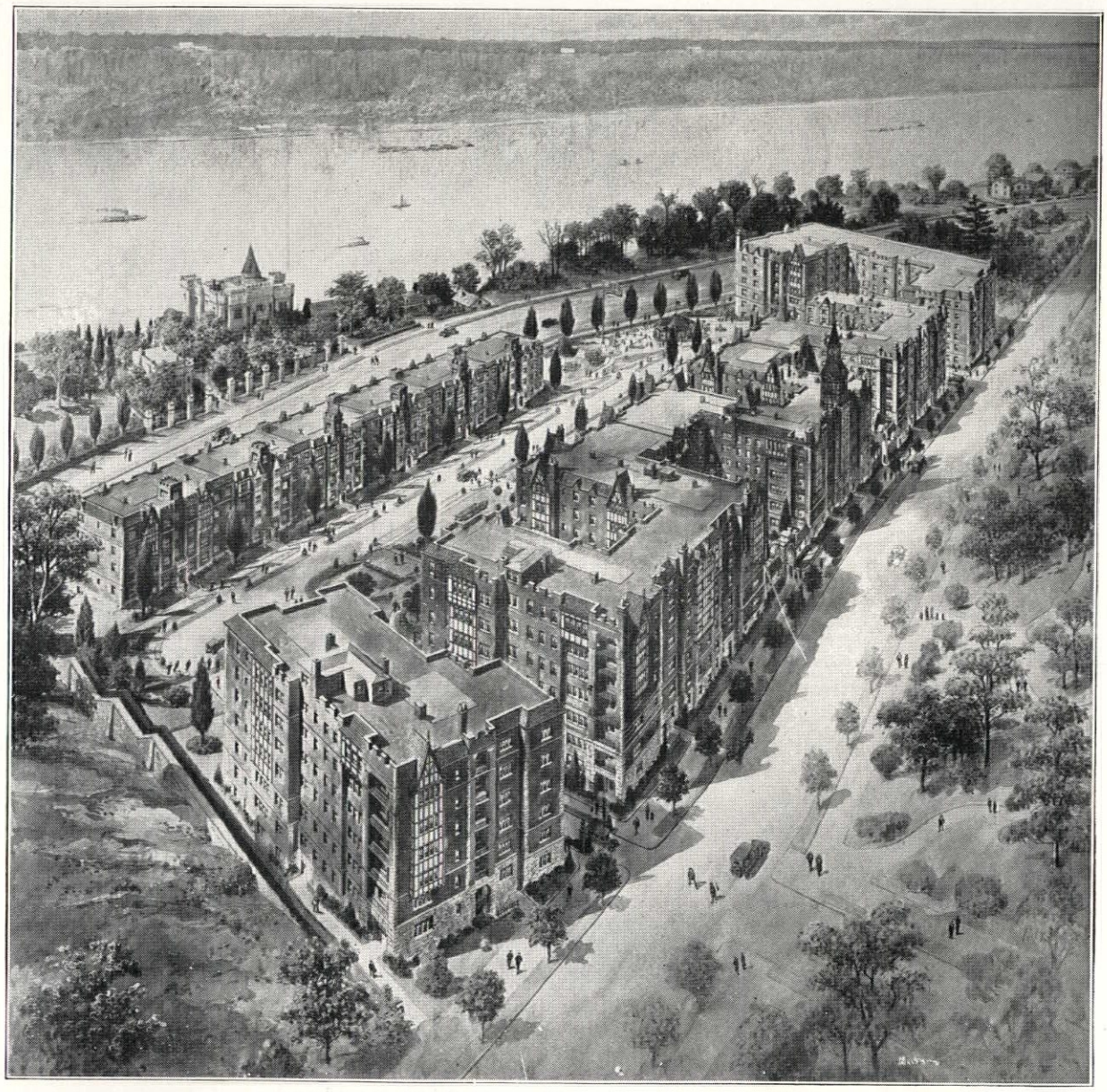
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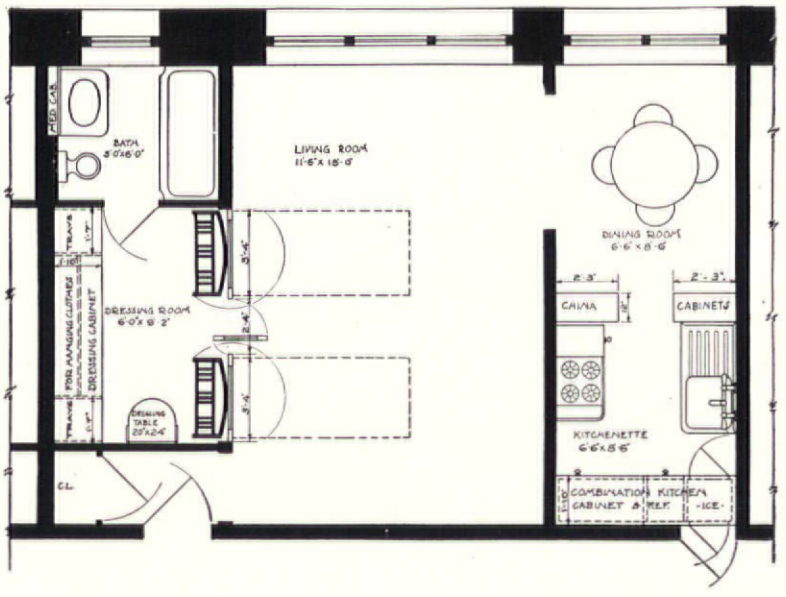
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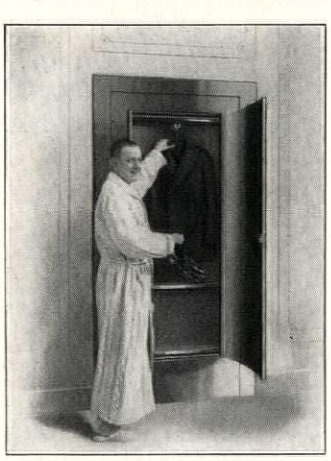
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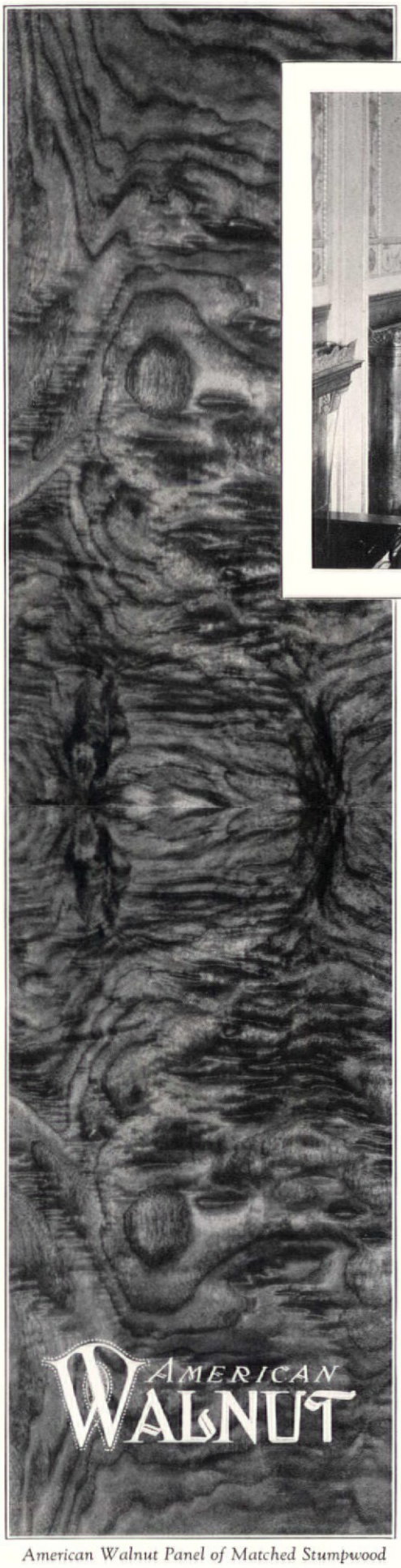
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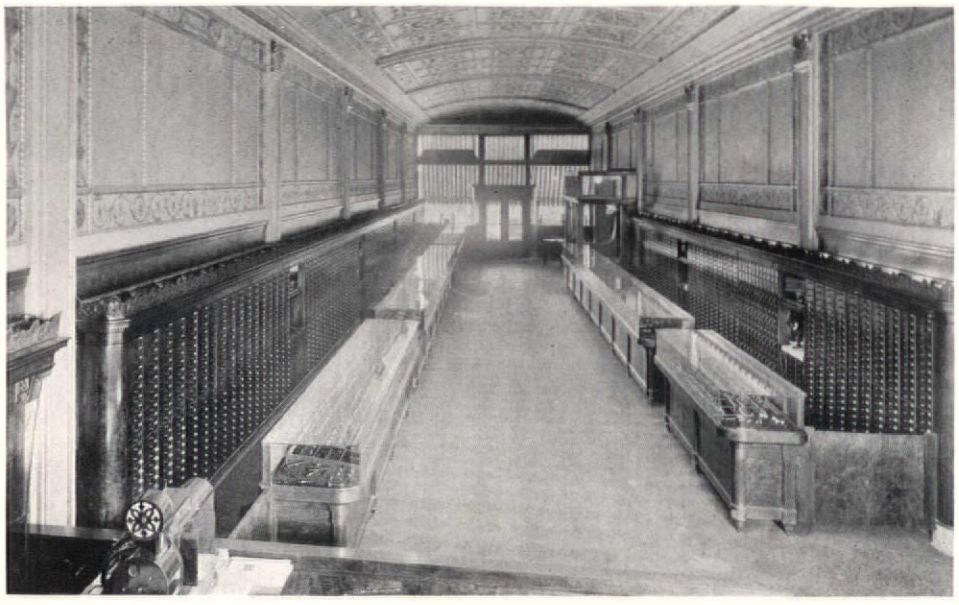
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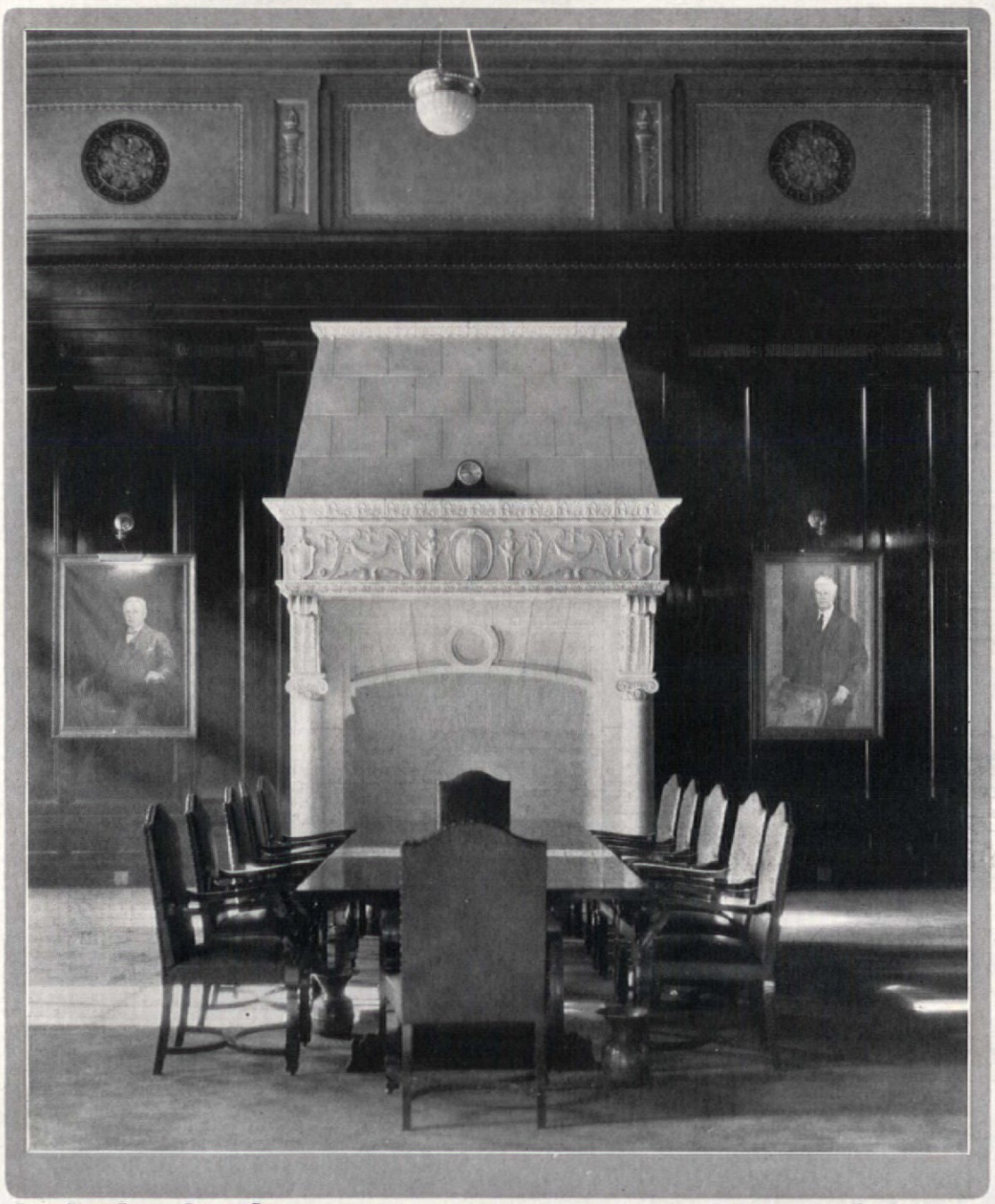
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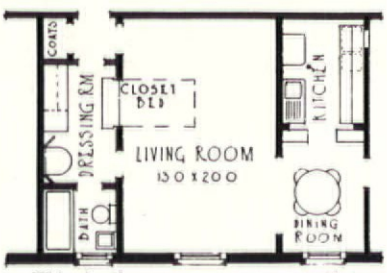
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CONSERVATION of space, attractive room arrangement and economy of construction are vital factors in the building of today's apartment dwelling. The introduction of the Fain Fold-Away Dining Room has met with instant favor because it best solves the problem of efficiency.

Here is an arrangement that is built into the wall requiring only six inch depth space. Behind the French doors it gives the appearance of an entrance to another room, utilizing the entire floor space of the living room for social or home entertainment. The fifty-four inch table comfortably seats four people, is easily set into place or folded back. The legs lock themselves rigid automatically. It is furnished in the design illustrated or may be built to conform to a special style of architecture.

The Fain Fold-Away Dining Room is shipped entirely assembled ready to install in your wall.



This is the room arrangement that has been termed the "efficiency apartment."



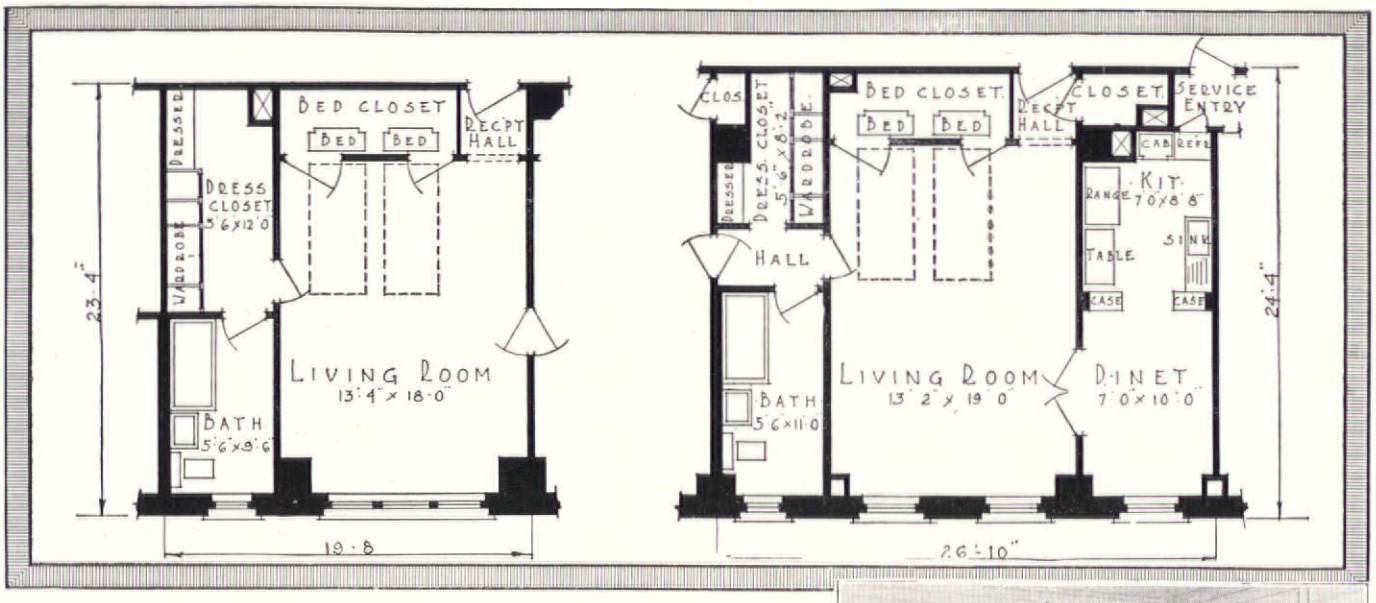
Here, with the Fain Fold-Away Dining Room, there is a saving of 100 square feet, in fireproof construction, amounting from $450 to $540.

Write for Illustrated Folder, Detailed Description and Price

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The Entire Idea of the Fain FOLD-AWAY DINING ROOM Is Protected by U. S. Patent Laws



Typical of the room and suite arrangement of the Windermere East, Chicago—America's largest residential hotel. C. W. and G. L. Rapp, architects, Chicago. On the left is a Hotel Unit. On the right a 2-Room Unit.



Living room of hotel unit at Windermere East showing Murphy In-A-Dor Beds in bed closet.

Comfort Built Around a Bed

IN the two unit plans above it is easy to see how guests at the Windermere East receive a maximum in living comfort at a minimum in household care.

Because each unit is designed to include Murphy In-A-Dor Beds there is provided the comfort and convenience of one more room than it is necessary to care for.

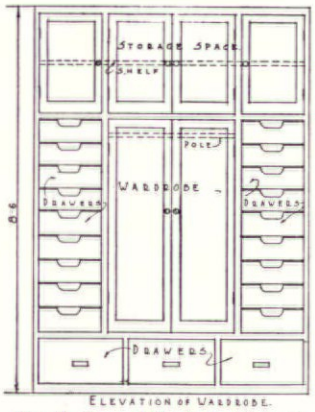
By day the living room is a spacious place to lounge or entertain. At night, with the Murphy Beds swung easily into position, this same room has all the comforts of a bed chamber.

A separate dressing closet, equipped with a dresser and an especially designed wardrobe, furnishes ample clothes storage and dressing facilities for two people. There is private access to the bathroom.

The Windermere installation of approximately 500 Murphy In-A-Dor Beds is arranged, for the most part, so that twin and double beds can be interchanged at a moment's notice.

Murphy Beds are made in twin types and standard, full size 4′ 6″ x 6′ 4″. Simple in construction and operation, they require no special door for perfect concealment. They swing easily through a 3 ft. opening.

That Murphy Beds are made standard equipment in the finest and largest hotels in the country attests to their worth and the complete satisfaction of owners and tenants.



Detail of especially designed wardrobe furnishing storage space for practically all wearing apparel. Doors have been omitted in this diagram to show drawer arrangement.

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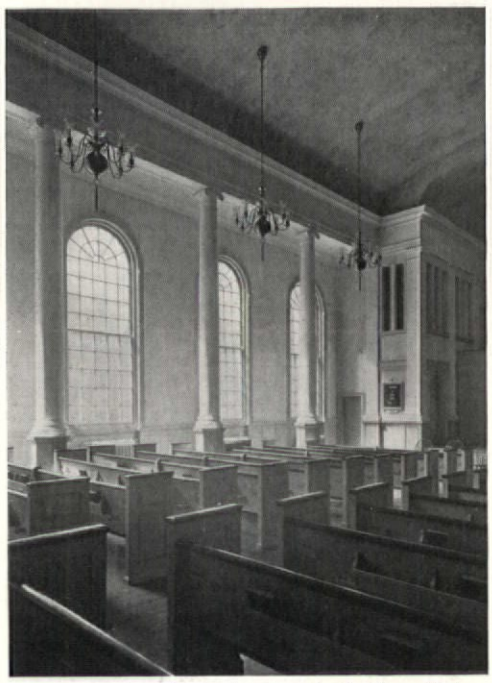
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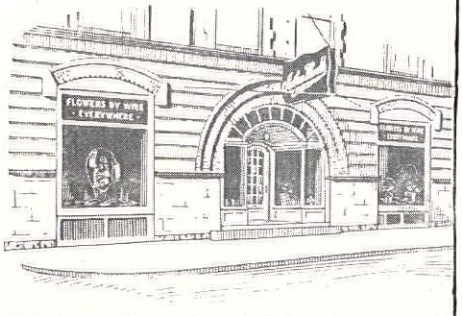


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This is the flower shop of Arthur Crabb, in Grand Rapids, Mich., floored with Armstrong's Marble Inlaid Linoleum, Pattern 76 (12-inch marbled blocks, alternately of black and cream). The floor has a border of plain black linoleum and was installed by the Herpolsheimer Company, of Grand Rapids.

Ask for Your Copy of the New 1924 Specification Book

The fourth, completely revised edition of "Armstrong's Linoleum Floors," the architects' linoleum handbook, is available. It is a 36-page portfolio of laying specifications and other architectural data, loose leaf, bound in an 8½ x 11-inch manila folder. Free to any architect upon request.

The Armstrong specifications are also contained in the Eighteenth Edition of Sweet's Architectural Catalog, pages 498-503.

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Home of Frank A. Vanderlip

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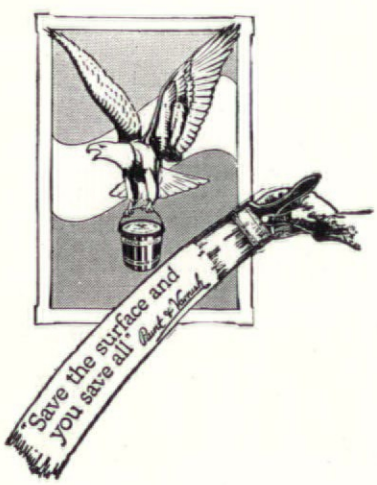
BEAUTY of design and art in painting are combined in the Scarboro, N.Y., home of Frank A. Vanderlip pictured above. The painting was done with Eagle White Lead in Oil.

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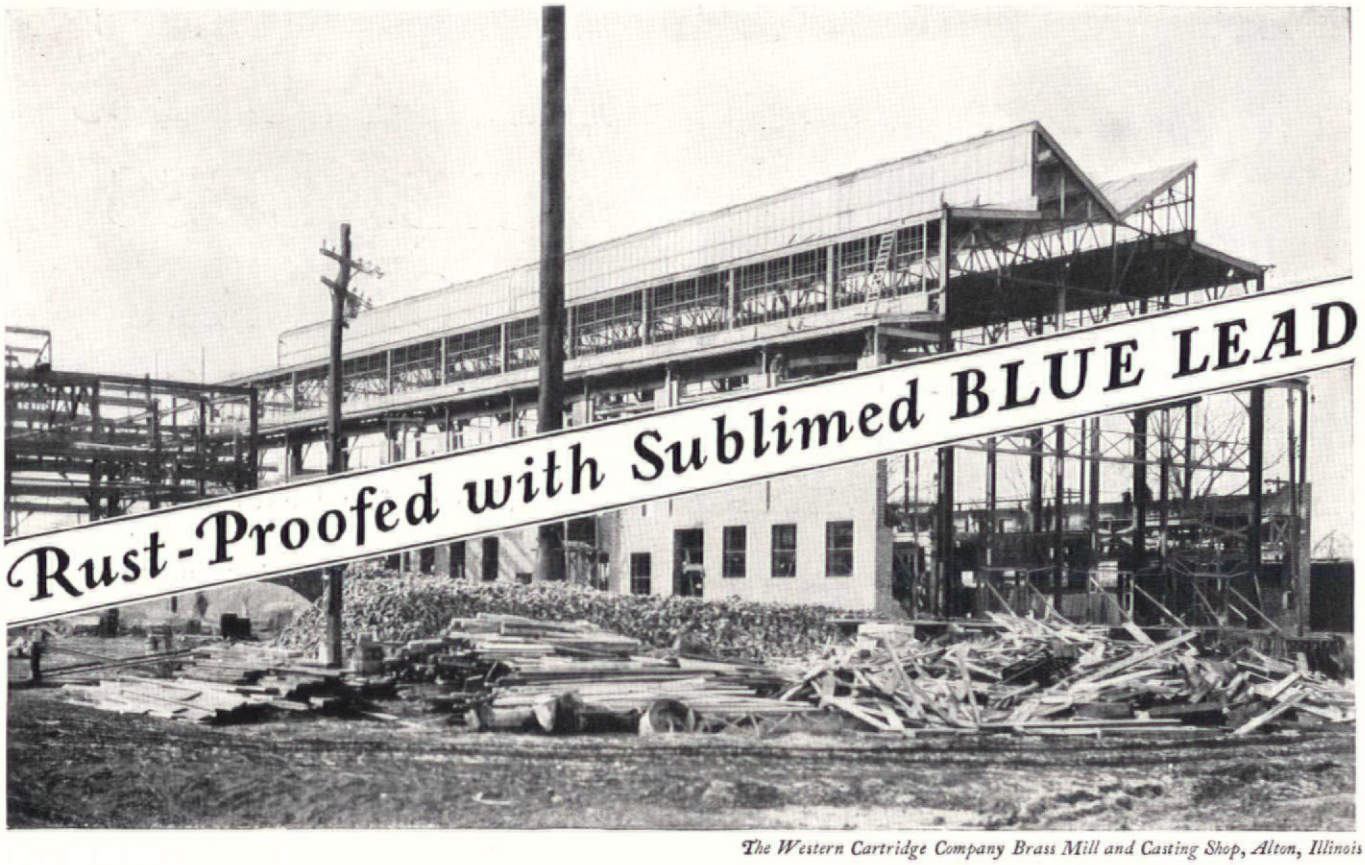


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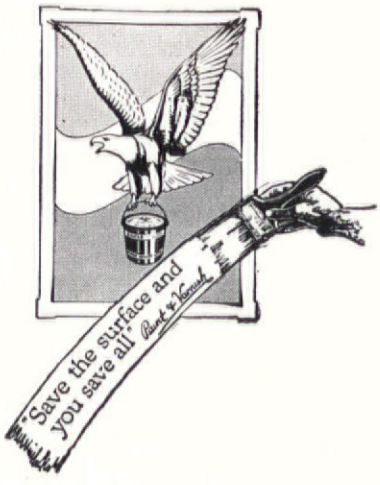
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"This last job has only strengthened our conviction that this is the stuff for metal."

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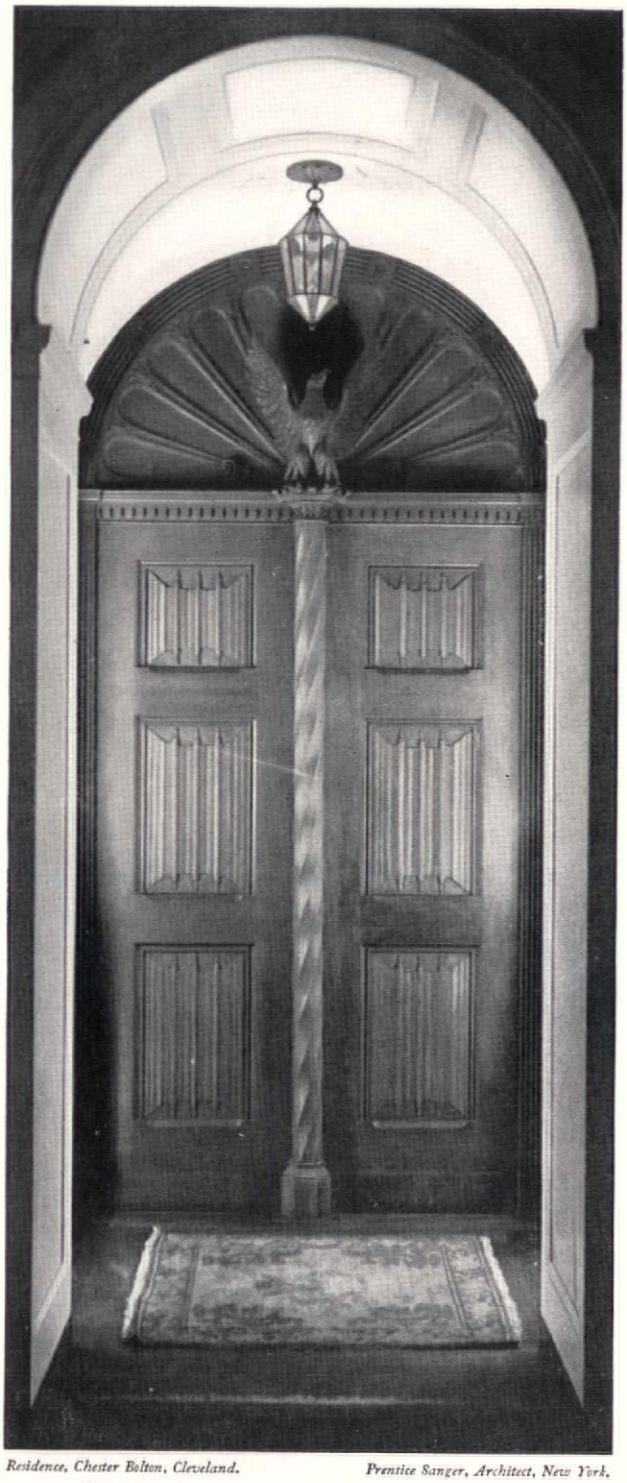
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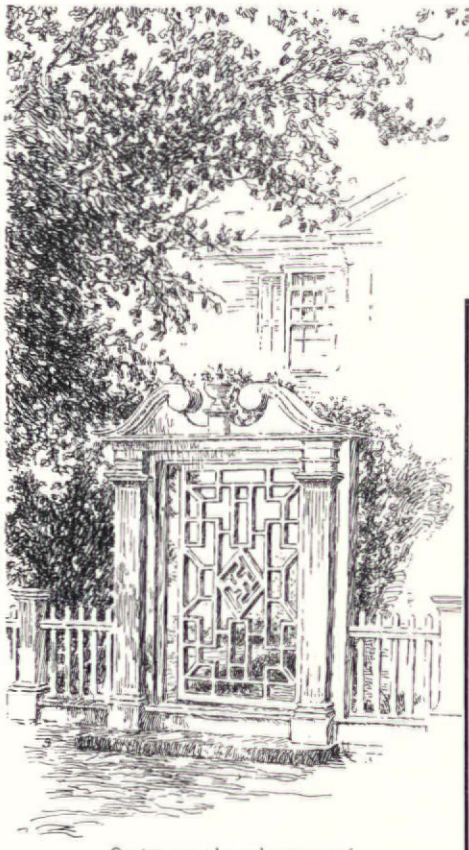
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See pages 1496-7 in Sweet's Catalog.



Quaint, carved wood gateway of the Thomas Cowles House

The THOMAS COWLES HOUSE, *Farmington, Conn.*
Courtesy "White Pine Architectural Monographs"



Built by a soldier of fortune

IN 1790, William Spratz, a soldier of many flags, built the Thomas Cowles House at Farmington, Conn. After almost 150 years, it still attracts the eye of all who appreciate beauty born of simplicity and correctly proportioned design.

Upon first glance at this eighteenth-century house, one sees a sloping gambrel roof, pierced by dormers and tall chimneys, the whole comfortably resting on corners made prominent by skilful rustication.

Closer observation reveals a Palladian window, detailed in pilasters and topped by cornice and pediment, which is placed in the center of the second story. This window extends out over the doorway and is supported by two columns from the ground floor. Architects agree that this simple composition forms an entrance which is the embodiment of old-time hospitality.

At the present time, this Colonial house, constructed entirely of white pine, is said to be in perfect condition. The exteriors are painted in light brown with a dark brown trim. The interiors—spacious staircase-hall and rooms decorated with richly moulded cornice and carved mantels—are all finished in white.

Write to us for these measured drawings

C. Bertram French, architect, New York, has accurately measured and drawn the most interesting details of the Thomas Cowles House. These drawings with others have been compiled in a Portfolio of Early American Architecture. It will be sent free to any architect requesting Portfolio No. 10.



The historical notes you have just read will not, however, appear in the Portfolio. So keep this page for reference after you receive your Portfolio.

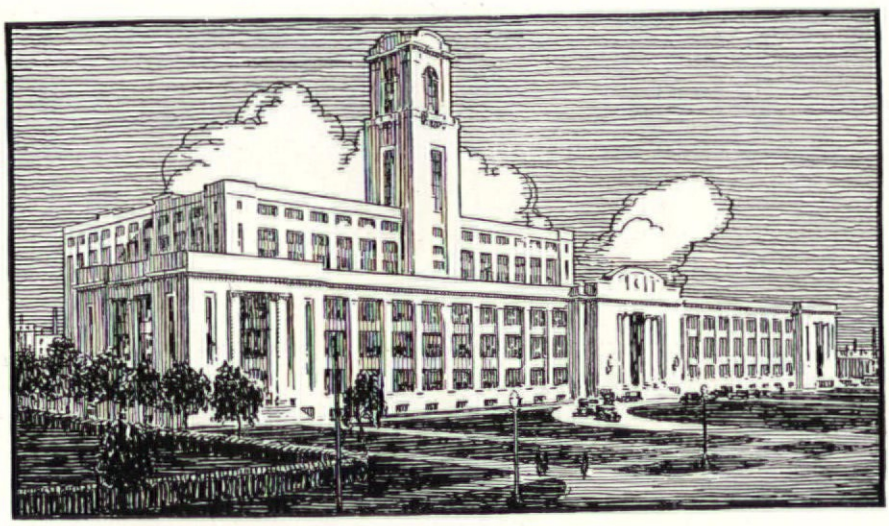
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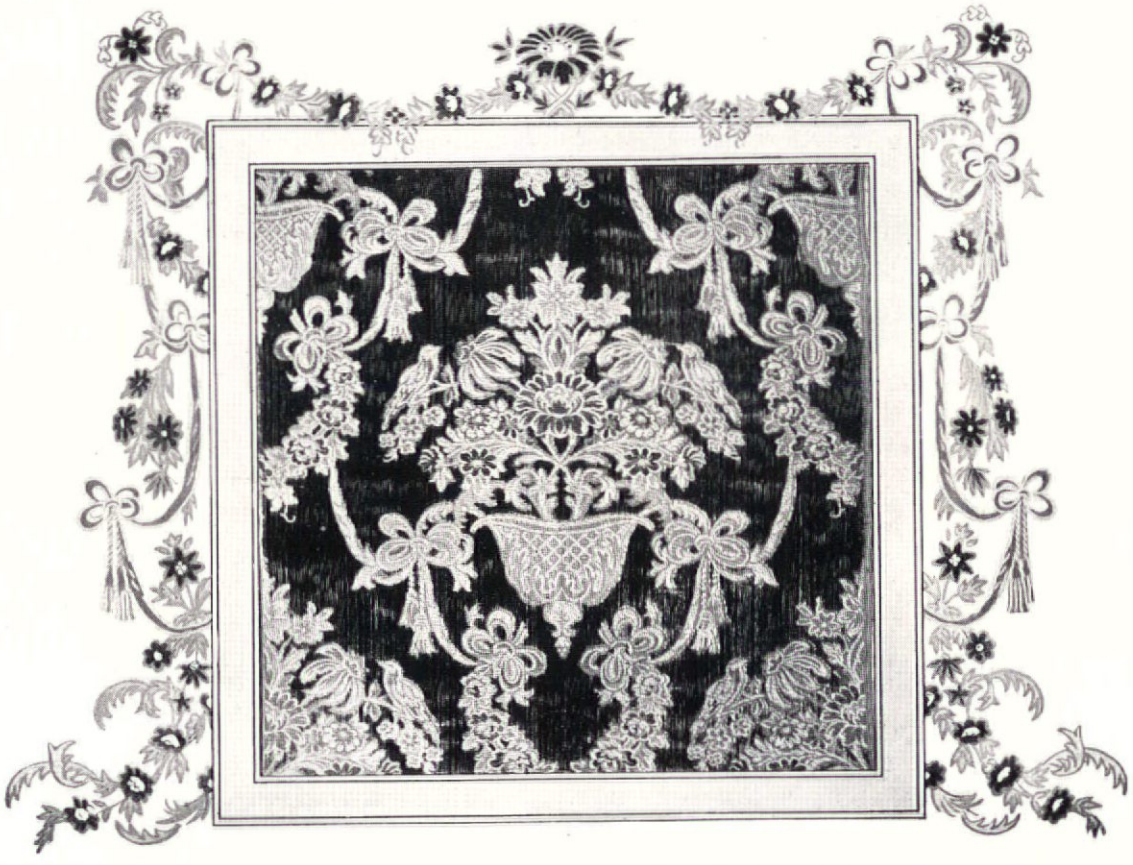
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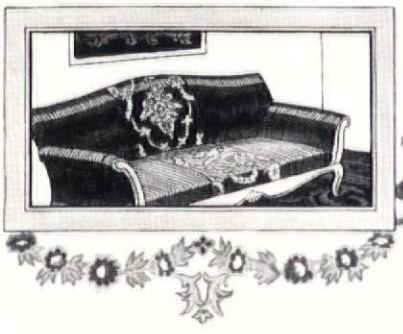


RENEWED interest in decorations of the Spanish style calls for fabrics of unusual beauty. The "grand manner" marked every phase of the Spanish Renaissance and suggested the tooled leathers, the cloths of gold, the brilliant parchments, and the wonderful altars which are associated with that period. Particularly fine were the wall hangings, flaming in color and sumptuous in effect because they had to supply warmth and richness to halls which were both princely and cold.

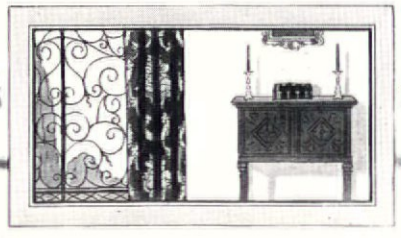
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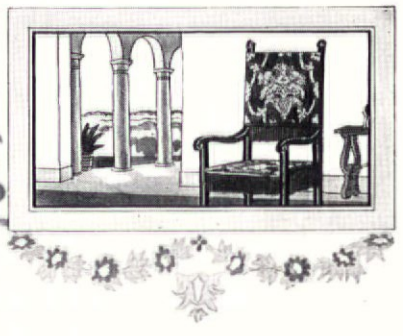
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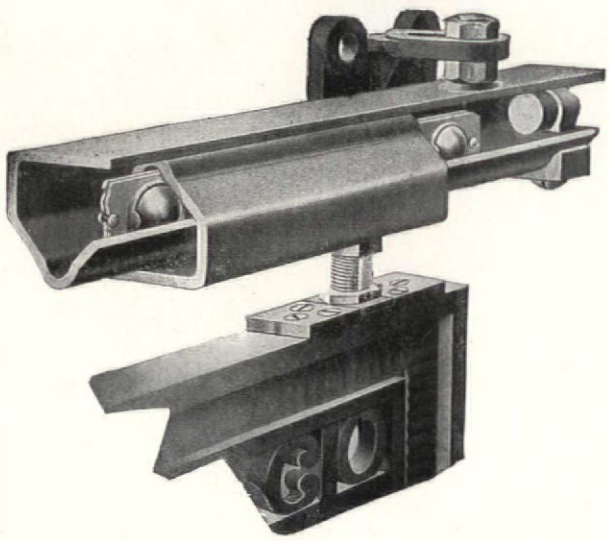
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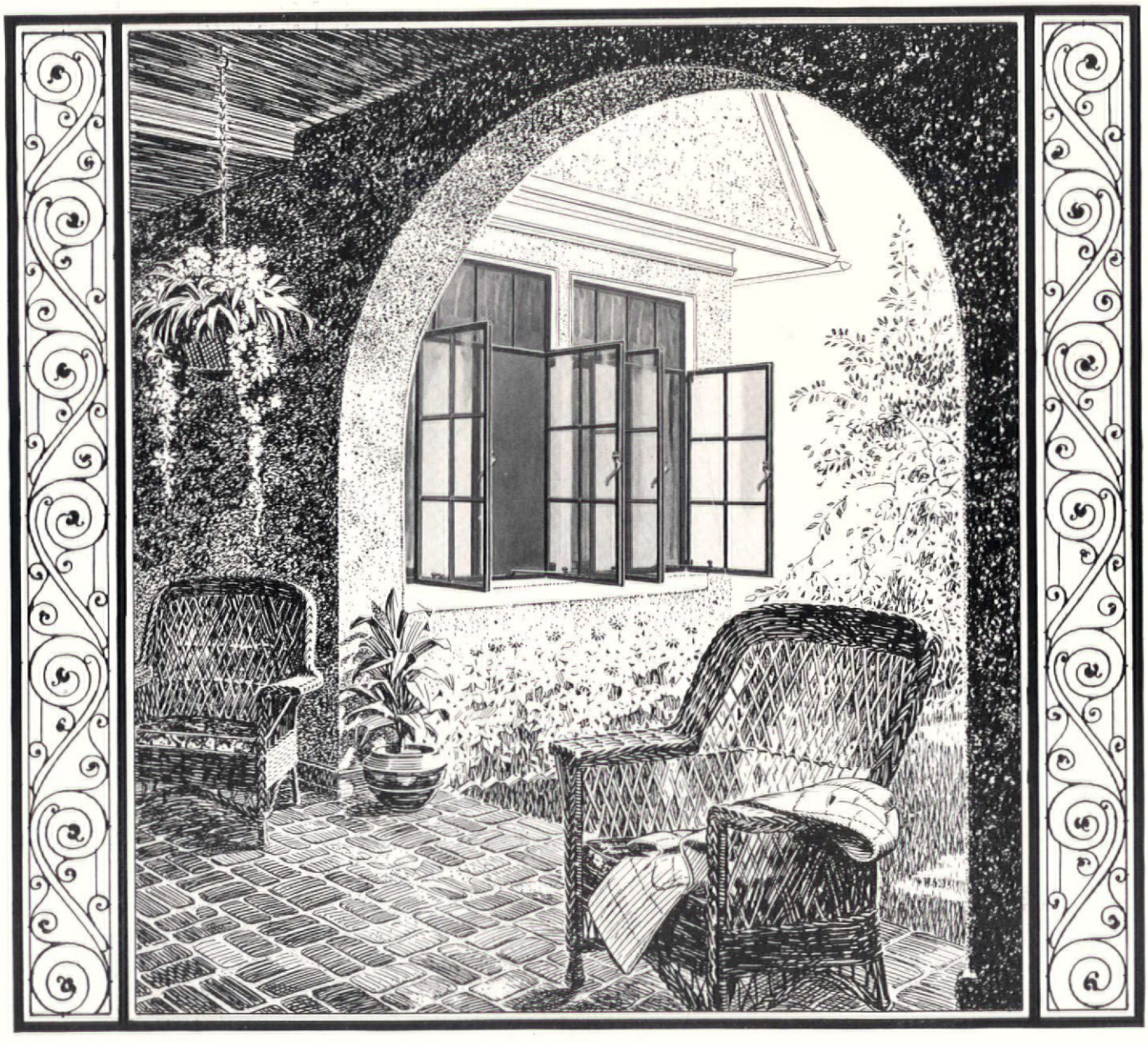
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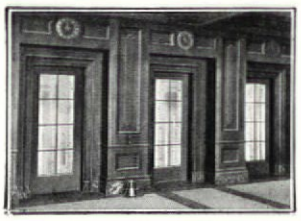
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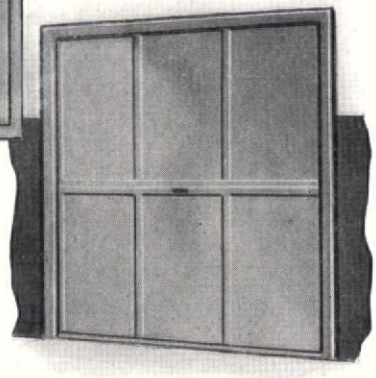
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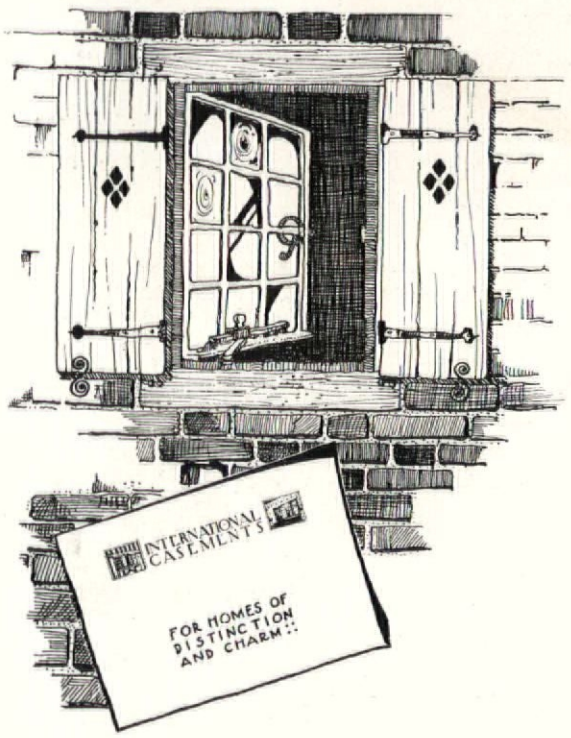
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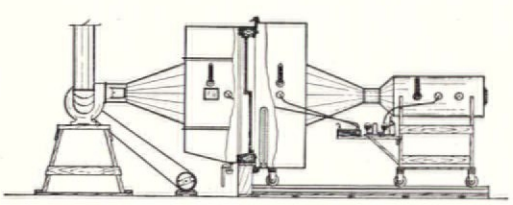
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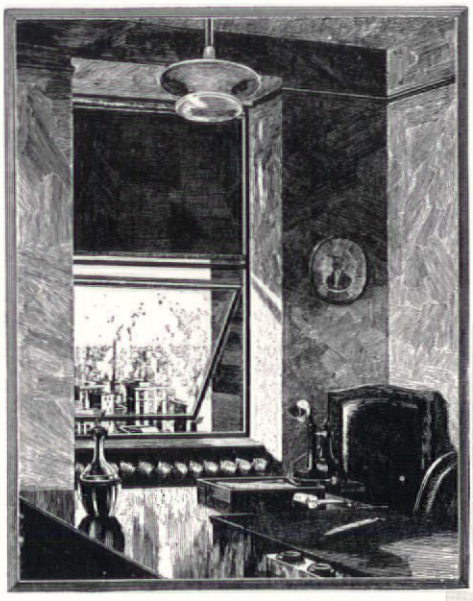
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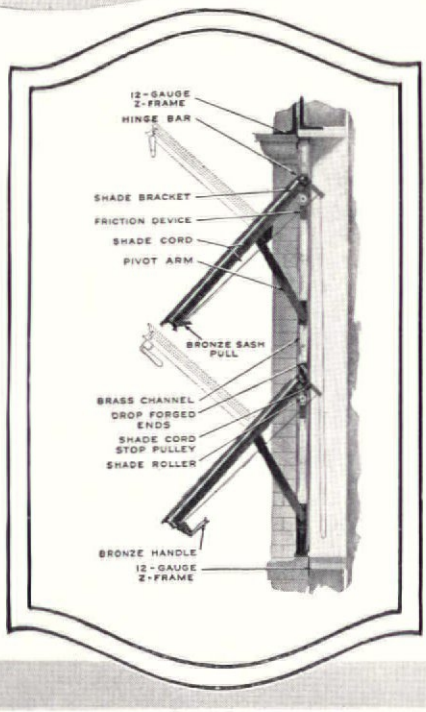
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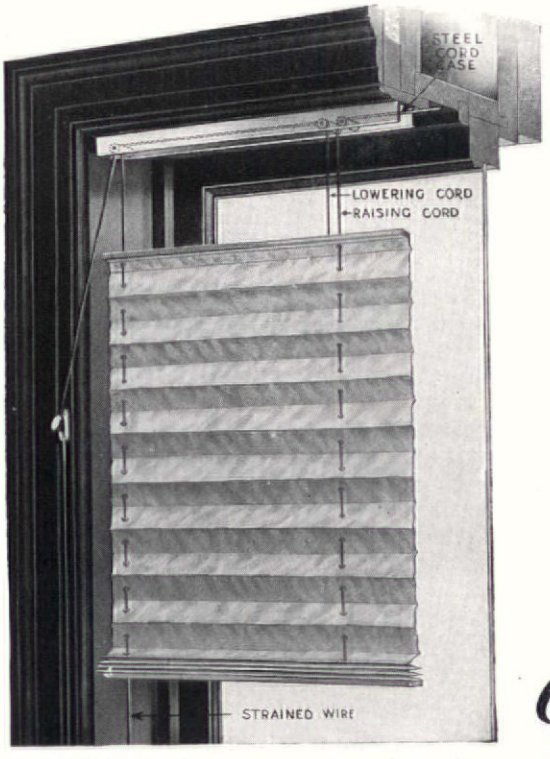
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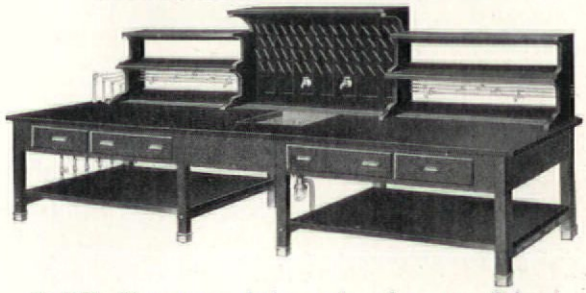
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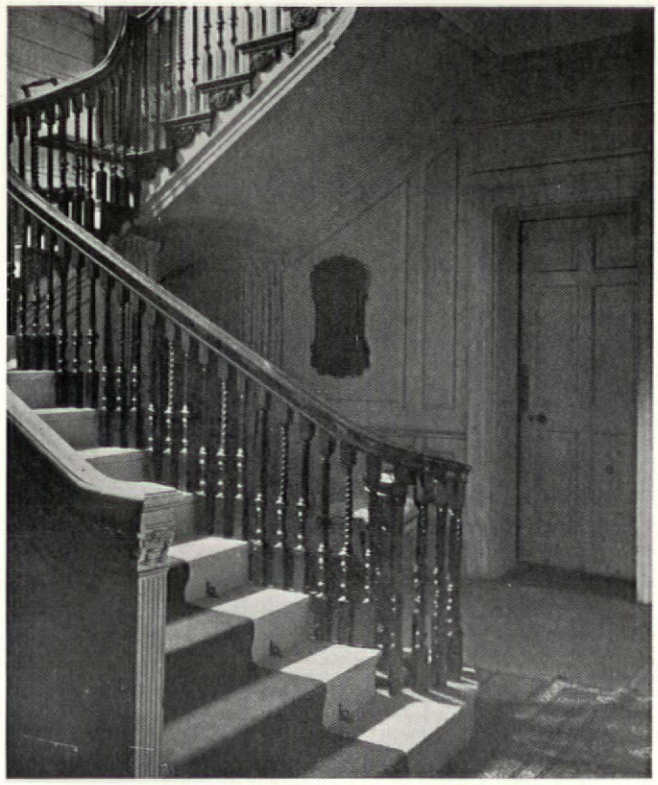
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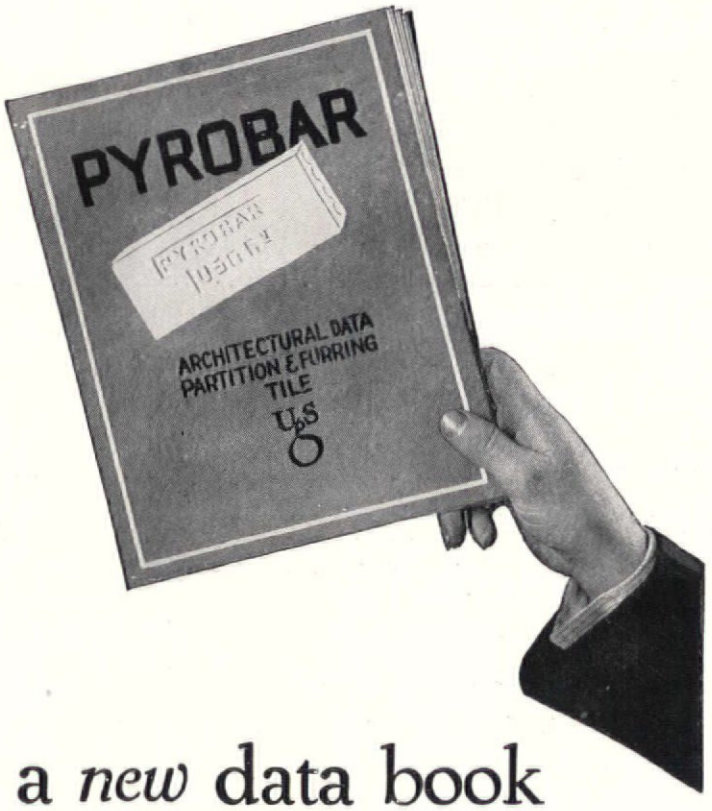
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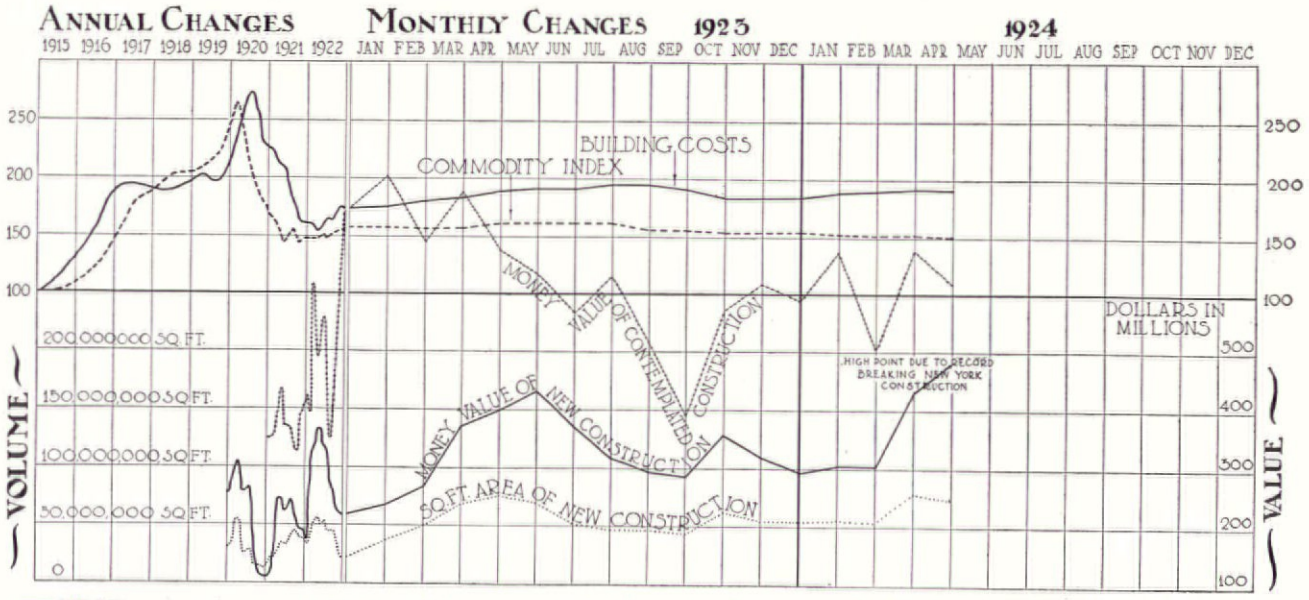
Information on economic aspects of construction and direct service for architects on subjects allied to building, through members of THE FORUM Consultation Committee

The Building Situation

NEW construction figures for the month of April represent a record-breaking total, but again, as in March, this total has been influenced by unprecedented activity in the New York and New Jersey districts. According to the F. W. Dodge Company this total includes such figures as an increase of 115 per cent in New York building activity since the first of the year as compared with last year. Also in this April figure there is included one $35,000,000 power plant in New York. During the first four months of this year the total of new contracts let has amounted to over $1,500,000,000, a considerable increase over the first four months of last year, but as much of this activity was in the New York area, it is to be noted that for the first four months of the year the total of the new building contracts for the rest of the country amounts to approximately the same as in the corresponding period for last year.

The fact that building costs seem to be fairly well stabilized in spite of demand is sufficiently unusual to be worthy of analysis. The effort of manufacturers today seems to tend toward increasing production and taking profits on a volume of business rather than to forcing up prices because of demand. When it is realized that speculative builders are hesitating and that a number of large buildings are being held up because of high costs, and this in spite of the fact that money for building mortgages is easy to obtain, it is evident that the market is in a somewhat delicate situation which will not stand any considerable upward turn in costs.

Manufacturers are also keeping a wary eye upon the threatened danger from foreign building materials produced for shipment to this market. According to the Dow Service reports, the opinion is expressed that the best protection for American manufacturers against threatened foreign competition is the establishment of large reserve stocks of materials. This situation is evidently developing, and it is to be noted that the production of common brick, cement and lumber is probably greater this year than ever before. It is logical, however, to expect some decline in building cost as the summer advances.



THESE various important factors of change in the building situation are recorded in the chart given here: (1) *Building Costs.* This includes the cost of labor and materials; the index point is a composite of all available reports in basic materials and labor costs under national averages (2) *Commodity Index.* Index figure determined by the United States Department of Labor. (3) *Money Value of Contemplated Construction.* Value of building for which plans have been filed based on reports of the United States Chamber of Commerce, F. W. Dodge Co., and *Engineering News-Record.* (4) *Money Value of New Construction.* Total valuation of all contracts actually let. The dollar scale is at the right of the chart in millions. (5) *Square Foot Area of New Construction.* The measured volume of new buildings. The square foot measure is at the left of the chart. The variation of distances between the value and volume lines represents a square foot cost which is determined first, by the trend of building costs, and second, by the quality of construction.

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And the most valuable of the facts that the years teach are those that point out new *methods*—and these are *patentable.*

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Selected List of Manufacturers' Literature

FOR THE SERVICE OF ARCHITECTS, ENGINEERS, DECORATORS, AND CONTRACTORS

The publications listed in these columns are the most important of those issued by leading manufacturers identified with the building industry. They may be had without charge, unless otherwise noted, by applying on your business stationery to *The Architectural Forum*, 383 Madison Ave., New York, or the manufacturer direct, in which case kindly mention this publication.

ACOUSTICS

Johns-Manville, Inc., Madison Ave. & 41st St., New York, N. Y.
Architectural Acoustics. Booklet. 6 x 9 in. 24 pp. Illustrated. Treatise on the correction of architectural acoustics in churches, schools, hospitals, office buildings and other places.

Macoustic Engineering Company, Inc., 323 Bulkley Building, Cleveland, Ohio.
Acoustics Folder 3¼ x 6¼ in. 2 pp. Not illustrated. Contains brief story of the care in the selection of the architect for the Cleveland Public Hall; the reasons for selecting him; and brief reference to "Sound Direction and Control" principles.
Offering to Architects Folder 8½ x 11 in. 2 pp. Illustrated. Contains comments on acoustics of the Cleveland Auditorium by leading artists; list of buildings treated by Macoustic "Sound Direction and Control" principles; many features as to application, appearance, color treatment, financial saving, and complete explanation of our engineering service.
Explaining Macoustic Folder 7¼ x 10 in. 1 Sheet. Illustrated. A sheet containing information as to how an architect can avail himself of the engineering service which we have to offer.

ASH HOISTS—ELECTRIC AND HAND POWER

Gillis & Geoghegan, 544 West Broadway, New York, N. Y.
General Catalog. 8½ x 11 in. 20 pp. Fully illustrated. Contains specifications in two forms (with manufacturer's name and without). Detail ¼" scale for each telescopic model and special material-handling section.
The Man-Saving Load Lifter, 5⅞ x 8⅞ in. 8 pp. Illustrated. Describes G&G Telescopic and Non-Telescopic Hoists for handling material in factories.

BATHROOM ACCESSORIES

The Fairfacts Company, 234 West 14th St., New York, N. Y.
Catalog F. 4 x 9 in. 12 pp. Illustrated. Describes full line of china fittings for bathrooms.
The Perfect Bathroom. Booklet. 4 x 9 in. 12 pp. Illustrated. Shows full line, Biltin and Projecting Types, installed. For architects and clients.

BOILERS—See Heating Equipment

BRICK

American Face Brick Association, 1751 Peoples Life Bldg., Chicago, Ill.
The story of Brick. Third Edition. Booklet. 7 x 9¼ in. 55 pp. Illustrated. Presents the merits of face-brick from structural and artistic standpoints. Tables of comparative costs.
The Home of Beauty. Fourth Edition. Book. 8 x 10 in. 72 pp. Color plates. Presents fifty designs for small face-brick houses submitted in national competition by architects. Text by Aymar Embury II, Architect. Price 50c.
Bungalow and small house plans. Booklets. 8½ x 11 in. 50 pp. Illustrated. Four booklets, showing a variety of designs for small face-brick houses, covering 3, 4, 5, 6, 7 and 8 room houses. Price, 25c. each, $1 for the set.
A Manual of Face-Brick Construction. Booklet. 8½ x 11 in. Textbook on construction of the brick wall and various uses of face brick. 31 colored plates of brick houses with plans. Price, $1.00.
Architectural Details in Brickwork. Series 1, 2, 3. 8½ x 11 in. Very useful to the architect or draftsman. Sent free to architects applying on their office stationery. To others $1.50.

BUILDING FINANCE

S. W. Straus & Co., 565 Fifth Ave., New York, N. Y.
Forty-two Years Without Loss to Any Investor. Booklet. 8 x 5 in. 38 pp. Illustrated. A carefully prepared booklet for the thinking investor. Describes Straus bonds, the property upon which loans are made, and explains the Straus plan of safeguards which made possible the 42-year record.

BUILDING STONE—See Stone, Building

BUILDING, STANDARD STEEL

Truscon Steel Company, 250 W. Lafayette Blvd., Detroit, Mich.
Truscon Standard Building Catalog. 8½ x 11 in. 48 pp. Contains data and illustrations.

BUILDING, STEEL PRODUCTS FOR

Massillon Steel Joist Company, The, Massillon, Ohio.
Massillon Bar Joists. Pamphlet. 8½ x 11 in. 8 pp. Illustrated. Pamphlet containing general information descriptive of Massillon Bar Joist Fireproof Floor Construction, with cuts showing methods of construction and photographs of installations.
Detailed Dimensions, Safe Loading Tables, Details of Construction. Catalog. 8½ x 11 in. 32 pp. Catalog. Illustrated.
Catalog containing complete detailed information about each Massillon Bar Joist Structural Unit.

Truscon Steel Company, 250 W. Lafayette Blvd., Detroit, Mich.
Truscon Data Book. Catalog. 3½ x 6 in. 128 pp. Illustrated. Contains complete information with illustrations on Truscon reinforcing steel, steel windows, metal lath, standard buildings, concrete inserts, steel joists, pressed steel stamping and chemical products.

CARPETS, IMPORTED

Kent-Costikyan Trading Company, Inc., 484 Fifth Ave., New York, N. Y.
Rugs. Catalogue. 9½ x 6½. 56 pp. Illustrated. Illustrates and describes an unusual collection of Oriental and Occidental rugs with stock list.

CEMENT

Carney Company, The, Mankato, Minn. Booklet. 8 x 10 in. 24 pp. Illustrated. Complete information on product, showing prominent buildings in which this cement has been used.
Booklet. 8½ x 11 in. 8 pp. Illustrated. Attractive circular describing late improvements in manufacturing Carney; cost, comparisons, physical tests, specifications and testimonials. Contains four-page list of Carney-built buildings in all parts of the United States with architects' and contractors' names.

Louisville Cement Co., 315 Guthrie St., Louisville, Ky.
Brixment. Booklet. 7½ x 5 in. 16 pp. Illustrated. Brixment, what it is, what it does, how it does it and why.

Sandusky Cement Co., Dept. F, Cleveland, Ohio.
Medusa Waterproof White Portland Cement. Booklet. 8½ x 11 in. 32 pp. Illustrated.
Medusa Integral Waterproofing Powder and Paste. Booklet. 8½ x 11 in. 88 pp. and cover.

CONDUIT

National Metal Molding Co., 1113 Fulton Building, Pittsburgh, Pa.
Bulletin of all National Metal Molding Products. In correspondence folder. 9½ x 11½ in.
Sheraduct. Circular. 5 x 8 in. Illustrated.
Flexsteel. Circular. 5 x in. Illustrated.

CONSTRUCTION, FIREPROOF

Massillon Steel Joist Co., Massillon, Ohio.
Massillon Bar Joists. Brochure. 8½ x 11 in. Illustrated. Full data regarding the steel used for construction of floors in fireproof buildings of various kinds.

National Fire Proofing Co., 250 Federal St., Pittsburgh, Pa.
Standard Fire Proofing Bulletin 171. 8½ x 11 in. 32 pp. Illustrated. A treatise on fire proof floor construction.

Northwestern Expanded Metal Co., 934 Old Colony Building, Chicago, Ill.
Fireproof Construction Catalog, 6 x 9 in. 72 pp. Illustrated. Handbook of practical suggestions for architects and contractors. Describing Nemco Expanded Metal Lath.

DAMPPROOFING

Philip Carey Co., Lockland, Cincinnati, Ohio.
Architects' Specifications for Carey Built-up Roofing. Booklet. 8 x 10¾ in. 24 pp. Illustrated. Complete data to aid in specifying the different types of built-up roofing to suit the kind of roof construction to be covered.
Carey Built-up Roofing for Modern School Buildings. Booklet. 8 x 10¾ in. 32 pp. Illustrated. A study of school buildings of a number of different kinds and the roofing materials adapted for each.

Sonneborn Sons, Inc., L., 116 Fifth Ave., New York.
Specification Sheet. 8½ x 11 in. Descriptions and specifications of compounds for dampproofing interior and exterior surfaces.

DOORS AND TRIM, METAL

The American Brass Company, Waterbury, Conn.
Illustrated pamphlet describing use and adaptability of Extruded Architectural Bronze Shapes for metal window frames, doors, grilles, counter screens, etc.

The Compound & Pyrono Door Company, St. Joseph, Mich.
Pyrono Handbook for Architects and Contractors. 8½ x 11 in. 16 pp. Contains full information regarding Pyrono Fireproof Veneered Doors and Trim, with complete details and specifications. Pyrono details in sheet form for tracing.

Dahlstrom Metallic Door Company, 425 Buffalo Street, Jamestown, N. Y.
Architectural Catalog. 10 x 14 in. 46 pp. 11 sections. Illustrated. Catalog showing our regular styles and types of hollow metal doors and interior trim. Various types of frames and other architectural shapes also illustrated.

Richards-Wilcox Mfg. Co., Aurora, Ill.
Fire Doors and Hardware. Booklet. 8½ x 11 in. 64 pp. Illustrated. Describes entire line of tin-clad and corrugated fire-doors, complete with automatic closers, track hangers and all the latest equipment—all approved and labeled by Underwriters' Laboratories.

DRAFTING MATERIALS

American Lead Pencil Company, 220 Fifth Ave., New York, N. Y.
VENUS Pencil in Mechanical Drafting. Booklet C20. 6 x 9 in. 16 pp. Illustrated. Describes the many possibilities of the VENUS for technical drawing.
Catalog. 3¾ x 8¾ in. 25 pp. Illustrated. Describes pencils, holders, erasers, etc.

DUMBWAITERS

Kaestner & Hecht Co., Chicago, Ill.
Bulletin 520. Describes K. & H. Co. electric dumbwaiters. 8 pp.

Sedgwick Machine Works, 151 West 15th Street, New York.
Catalog and Service Sheets. Standard specifications, plans and prices for various types, etc. 4¼ x 8¼ in. 60 pp. Illustrated.

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—*Continued from page 87*

ELECTRICAL EQUIPMENT

Connecticut Electric Mfg. Co., Bridgeport, Conn.
Up-to-date Electrical Specialties Pocket Catalog. 3 x 4¾ in. 305 pp. Illustrated. Gives size, weight, prices and data for sockets, receptacles, rosettes, switches, cut-outs and other wiring devices.
Connecticut Toggles Switches Folder. 3½ x 6½ in. 4 pp. Illustrated. Describes latest idea in electric switch and gives list price, catalog numbers and schedules.
Connecticut Sockets. Folder. 3½ x 6½ in. 6 pp. Illustrated. Describes Key-Keyless and Push Button Sockets and gives prices and catalog numbers.

Frank Adam Electric Company, St. Louis, Missouri.
Catalog No. 32—1924 Panelboards—Steel Cabinets. 48 pp. 7¾ x10½ in. Illustrates and describes Safety Type Sectionally Constructed Panelboards, together with complete catalog listings.

Frink, Inc., I. P., 24th Street and 10th Avenue, New York, N. Y.
Catalog 415. 8½ x 11 in. 46 pp. Photographs and scaled cross-sections. Specialized bank lighting, screen and partition reflectors, double and single desk reflectors and Polaralite Signs.

General Electric Company, Schenectady, N. Y.
Wires and Cables. Booklet. 8 x 10½ in. 85 pp. Illustrated. Four Bulletins in a binder, describing wires and cables in general, conductor insulated with vulcanized rubber compound, varnished cambre and paper insulated cables, splicing materials and junction boxes for cable installations, armored cables.
Electric Fans. Folder. 6 pp. 3¼ x 6 in. Illustrated. Describes 1922 line of electric fans, giving catalog numbers, voltages and frequencies.
Reliable Wiring Devices. Catalog. 3 x 4⅝ in. 206 pp. Illustrated. Pocket catalog giving prices, schedule classifications and data for socket receptacles, switches, rosettes, cutouts and fuses for miscellaneous devices.
Lighting of Public Buildings. Bulletin. 6 x 9 in. 25 pp. Illustrated. Describes lighting of galleries, banks, museums, libraries, municipal, county and state buildings.

The Edwin F. Guth Co., 2615 Washington Ave., St. Louis, Mo.
Bracolite Catalog No. 10, 10½ x 8 in. 28 pages. Illustrated. Catalog listing Brascolite fixtures in wide variety of plain and decorative types. Contains information of value in planning a lighting installation.
Bank and Office Building Catalog, 10½ x 8 in. 16 pages. Illustrated. Catalog listing a selected line of fixture equipment for application to all outlets in bank or office building or similar buildings.
Architectural Bulletins, Series of 5. 10½ x 8 in. 28-64-44-28-44 pages. Illustrated. A series of five bulletins, each treating upon the application of lighting to one particular class of service. Hospitals; Banks and Office Buildings; Schools, Colleges and Y. M. C. A. Buildings; Church and Fraternal Buildings; Commercial Service.
Special Hospital Catalog. 10½ x 8 in. 9 pages. Illustrated. Illustrates a special selection of fixture equipment for hospital use including types suitable for all outlets.

Hart & Hegeman Mfg. Co., The, 342 Capital Avenue, Hartford, Conn.
The Line of Least Resistance Catalog R. 10-1/24 x 7⅛ in. 152 pp. Illustrated. Complete display of switches, sockets, accessories and wiring devices with brief description.
A new H & H Switch. Leaflet. 3½ x 6 in. 4 pp. Illustrated. Illustrates a new H & H composition base push switch of De Luxe quality.
Tumbler Switches. Booklet. 3½ x 6 in. 6 pp. Illustrated. Shows complete line of H & H Tumbler Switches.
H & H Elexits. Booklet. 8 x 10¼ in. Illustrated. Shows new complete line of Elexits—places for lights. May be used for Wall Receptacles or Electric Fixtures.

The Holtzer-Cabot Electric Co., Amory St., Boston 19, Mass.
Signaling Systems for Hospitals. Brochure. 8½ x 11 in. 42 pp. Illustrated. Contains complete data covering Nurse's Call, Doctor's Call, "In" and "Out," Fire Alarm, Watchman's Clock and Telephone Systems.
Signaling Systems for Schools. Brochure. 8½ x 11 in. 47 pp. Illustrated. Contains complete data covering Telephone Systems, Program Bells, Fire-Alarm Systems, Low Tension Power Plant and Laboratory Equipment.

Kohler Co., Kohler, Wis.
Kohler Automatic Power and Light 110 Volt D. C. Booklet. 5 x 7 in. 32 pp. Illustrated. Describes a standard voltage automatic, electric power and light plant for isolated homes.

Pick & Company, Albert, 208 West Randolph St., Chicago, Ill.
School Cafeterias. Booklet. 9 x 6 in. Illustrated. The design and equipment of school cafeterias with photographs of installation and plans for standardized outfits.
Kitchen Equipment. Booklet. 9 x 6 in. Illustrated. Photographs and descriptions of Hotel, Club and Hospital kitchens with treatise on plans and equipment of efficient kitchens.
Electric Kitchen Equipment. Booklet. 8½ x 11½ in. Illustrated. Photographs and descriptions of PIX "Master-Made" ranges, ovens, etc., for Hotels and Restaurants.

Simplex Wire & Cable Co., 201 Devonshire Street, Boston, Mass.
Simplex Manual Catalog and reference book. 6¾ x 4¼ in. 92 pp. Contains in addition to information regarding Simplex products, tables and data for the ready reference of architects, electrical engineers and contractors.
Specification No. 2053. For Simcore Wires and Cables. Various sizes of Conductor-Rubber Insulation.

Western Electric Co., 195 Broadway, New York, N. Y.
Western Electric Inter-Phones for Apartment Houses. Booklet. 5¼ x 6¼ in. 16 pp. Illustrated. Illustrates and describes use of Inter-Phones in Apartment Houses.
Installing and Maintaining Western Electric Inter-Phones in addition to giving general information on layout of systems; details are supplied on individual Inter-Phone Systems, listing battery and wiring requirements.

ELECTRICAL EQUIPMENT—Continued

Westinghouse Electric & Mfg. Company, East Pittsburgh, Pa.
Safety Switches. Folder F-4434 B. 3½ x 6 in. 2 pp. The 100 per cent Safe Service Entrance Switch.
Meter Service Switches. Booklet. F-4484. 3½ x 6 in. 16 pp.
Panel Boards. Catalog 22A. 8½ x 11 in. 16 pp. Illustrated.
What Fans Are For. Booklet F-4520. 3½ x 6 in. 16 pp. Illustrated in color.

ELEVATORS

Kaestner & Hecht Co., Chicago, Ill.
Bulletin 500. Contains 32 pp. Giving general information on passenger elevators for high buildings.
Bulletin 530. Interlocks for Passenger and Freight Elevators.
Bulletin Signals for Passenger and Freight Elevators.

Otis Elevator Company, 11th Ave. & 26th Street, New York, N. Y.
Otis Push Button Controlled Elevators. Booklet. 6 x 9 in. 56 pp. Illustrated. Detailed description of Otis Push Button Elevators. Their uses in residences, stores, institutions, apartment houses, business offices and banks, etc.
Otis Geared and Gearless Traction Elevators of All Types. Descriptive leaflets. 8½ x 11 in. Illustrated. Full details of machines, motors and controllers for these types.
Escalators. Booklet. 8½ x 11 in. 22 pp. Illustrated. Describes use of escalators in subways, department stores, theatres and industrial buildings. Also included elevators and dock elevators.

Richards-Wilcox Mfg. Co., Aurora, Ill.
Elevators. Booklet. 8½ x 11 in. 24 pp. Illustrated. Describes complete line of "Ideal" elevator-door hardware and checking devices, also automatic safety devices.

Sedgwick Machine Works, 151 West 15th Street, New York.
Catalog and descriptive pamphlets. 4¼ x 8¼ in. 70 pp. Illustrated. Descriptive pamphlets on hand power freight elevators, sidewalk elevators, automobile elevators, etc.

FENCES

The Stewart Iron Works Company, Cincinnati, Ohio.
Book of Designs "B." 9 x 12 in. 80 pp. Illustrated. Book of designs illustrated from photographs of ornamental iron fence and entrance gates erected by us. Valuable to architects.

FIRE DOORS—See Doors, Windows and Trim, Metal

FIREPLACE EQUIPMENT

Covert Co., H. W., 137 E. 46th Street, New York, N. Y.
Hints on Fireplace Construction. Catalog. 5⅝ x 8½ in. 11 pp. Illustrated. Diagrams of construction and installation of Covert "Improved" and "Old Style" Dampers and Smoke Chambers. Also illustrations of Covert brass and wrought iron Fireplace Fittings.

FIREPROOFING—See also Construction, Fireproof

The General Fireproofing Company, Youngstown, Ohio.
Fireproofing Handbook. 64 pp. 8½ x 11 in. Illustrated. Gives methods of construction, specifications, data on Herringbone metal lath, steel tile, Trussit solid partitions, steel lumber, self-centering formless concrete construction.

FLOOR HARDENERS (CHEMICAL)

General Chemical Company, 40 Rector Street, New York City.
Hard-n-tyte Engineering Service. Booklet. 16 pp. 7½ x 10½ in. Describes Hard-n-tyte and its uses in connection with surface treatments of concrete with illustrations of specific applications.
The Hard-n-tyte Specification Folder. 2 pp. 7½ x 10½ in. Gives exact specifications for concrete floor finish.
Sample Bond. 9 x 14½ in. Duplicate of Five Year Guaranty Bond furnished on floors treated with Hard-n-tyte.

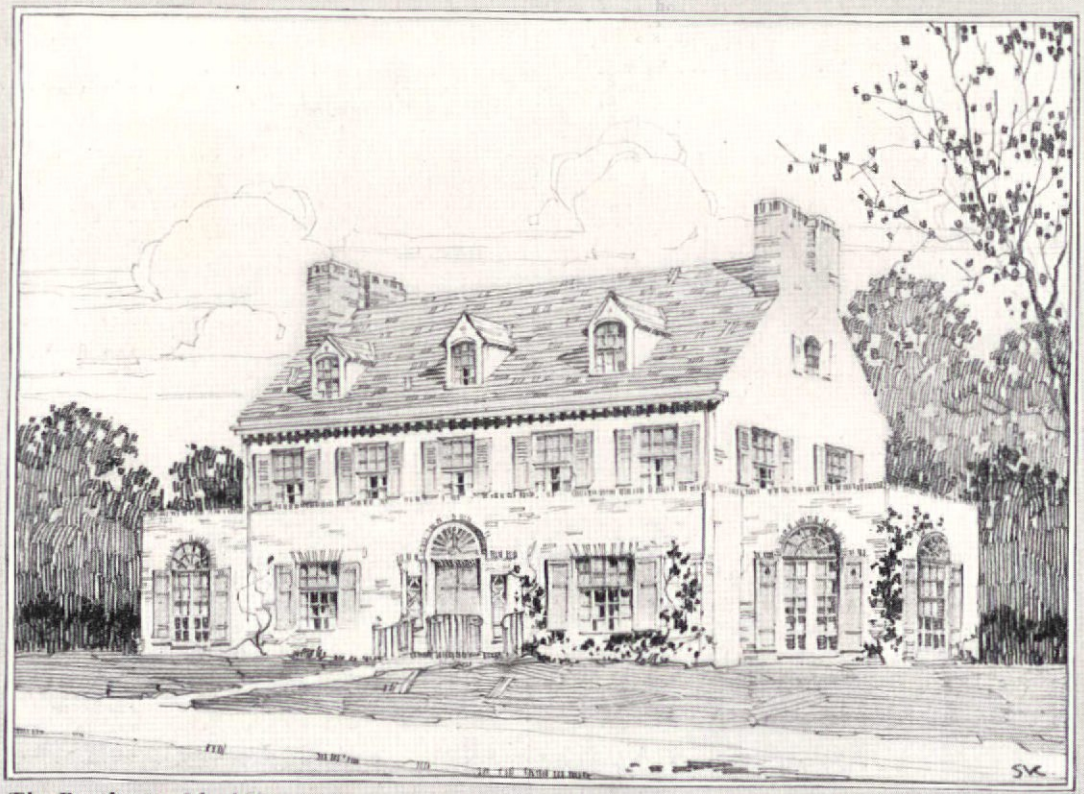
Sonneborn Sons, Inc., L., 116 Fifth Ave., New York.
Lapidolith, the liquid chemical hardener. Complete sets of specifications for every building type in which concrete floors are used, with descriptions and results of tests.

FLOORING

Armstrong Cork & Insulation Co., 132 24th Street, Pittsburgh, Pa.
Linotile Floors for Public and Semi-Public Buildings. 7½ x 10¾ in. 36 pp. Linotile Floors for Residences. 7½ x 10¾ in. 32 pp.
Armstrong's Cork Tile. Revised Edition. Booklet. 24 pp. 5 x 7 in. Illustrated in color. Contains complete specifications.

Armstrong Cork Co. (Linoleum Division), Lancaster, Pa.
Armstrong's Linoleum Floors. Catalog. 8½ x 11 in. 54 pp. Color plates. A technical treatise on linoleum, including table of gauges and weights and specifications for installing linoleum floors.
Decorative Floors. Booklet. 11¼ x 15 in. 16 pp. Color plates. Armstrong's Linoleum Pattern Book, 1924. Catalog. 3½ x 6 in. 208 pp. Color Plates. Reproductions in color of all patterns of linoleum and cork carpet in the Armstrong line.
Quality Sample Book. Two books. 3½ x 5¼ in. Showing all gauges and thicknesses in the Armstrong line of linoleum and cork carpets.
Detailed Directions for Laying and Caring for Linoleum. Handbook. 5 x 7 in. 48 pp. Instructions for linoleum layers and others interested in learning most satisfactory methods of laying and taking care of linoleum.
Business Floors. Booklet. 6 x 9 in. 48 pp. Illustrated in color. Explains use of linoleum for offices, stores, etc., with reproductions in color of suitable patterns, also specifications and instructions for laying.

Bonded Floors Company, Inc., 1421 Chestnut St., Philadelphia, Pa.
Gold-Seal Treadlite Tile. Booklet. 7⅞ x 10¾ in. 32 pp. Illustrated. An illustrated booklet showing Treadlite Tile installations and containing general information, specifications, etc., with reproductions of the product in color.
Gold-Seal Rubber Tile Folder. Folder 7⅞ x 10¾ in. 8 pp. Illustrated. A folder describing the usages and composition of Rubber Tile. Profusely illustrated with pictures of installations and reproductions of the product in color.



The Bamberger Ideal Home
Newark, N. J.

Francis Nelson, Architect
C. F. Karser, Plumbing Contractor

When Bamberger Builds

One of America's great department stores—L. Bamberger & Company, Newark, N. J.—has just finished an "Ideal Home" for exhibition purposes. Infinite care and skill have guided decisions on every detail of construction and furnishing.

Brass Pipe was chosen for hot and cold water lines because it cannot rust. And because true economy is reckoned by length of service rather than initial cost.

Anaconda Guaranteed Brass Pipe was chosen, above all others, because its quality has been proved by records of long service. It is guaranteed by the largest manufacturer in the Copper and Brass industry and is trademarked for the purpose of permanent identification.

THE AMERICAN BRASS COMPANY

GENERAL OFFICES: WATERBURY, CONNECTICUT

New York, Chicago
Boston, Philadelphia, Providence
Detroit, Pittsburgh, Cleveland
Cincinnati, St. Louis, San Francisco

ANACONDA
from mine to consumer

Mills and Factories:
Ansonia, Conn., Torrington, Conn.
Waterbury, Conn., Buffalo, N. Y.
Hastings-on-Hudson, N.Y., Kenosha, Wis.

In Canada: ANACONDA AMERICAN BRASS LIMITED, NEW TORONTO, ONTARIO

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—*Continued from page 88*

FLOORING—Continued

Bonded Floors Company, 4121 Chestnut Street, Philadelphia, Pa.
Hospital Floors. Description and advantages of using Gold-Seal Battleship Linoleum. Gold-Seal Treadlite Tile and Gold-Seal Rubber Tile in hospital construction insuring durable, noiseless, sanitary and attractive floors. Illustrated in color. 8 x 10¾ in. 8 pp. Illustrated.
Distinctive Floors. A publication describing Gold-Seal Treadlite Tile, its composition, manufacture and method of installation. Illustrated in full color, 8 x 10¾ in. 8 pp.

Carter Bloxonend Flooring Co., Long Bldg., Kansas City, Mo.
Bloxonend Flooring. Booklet. 3¼ x 6¼ in. 20 pp. Illustrated. Describes uses and adaptability of Bloxonend Flooring to concrete, wood or steel construction, and advantages over loose wood blocks.
Specification Sheet. 4 pp. 8½ x 11 in. Illustrated. Standard Specifications in convenient form for Architects and Engineers.
Lateral Nailing Specification. Folder. 8½ x 3¾ in. 4 pp. Illustrated. Shows how this method of nailing eliminates embedded sleepers, wood sub-floor or nailing strips.
What's in a Name? Folder. 8½ x 11 in. Illustrated. Enumerates advantages of a heavy service flooring that lays smooth and stays smooth.

Galassi Company, 153 East 38th Street, New York, N. Y.
Suggesting a Standard Specification for Terrazzo Work Booklet. Specifications for the use of terrazzo.

Muller Co., Franklyn, R., Waukegan, Ill.
Asbestone Composition Flooring. Circulars, 8½ x 11 in. Descriptions and Specifications.

Ritter Lumber Company, W. M., 115 E. Rich St., Columbus, Ohio.
Contains information on how Oak Flooring is made. Why Oak from the Appalachian region makes the best Flooring.
Ritter Oak Flooring. Booklet. 5 x 7 in. 31 pp. Illustrated. How to select the right kind of Oak Flooring. Grades of Flooring. How Oak Flooring should be laid, nailed and scraped. How to care for Oak Flooring.
Ritter Appalachian Oak Flooring Booklet. 8 x 11 in. 16 pp. Illustrated. Gives illustrated information how Flooring is manufactured and eight reasons why Appalachian Oak Flooring will assure architects the floor beauty and serviceability they are looking for in Oak Flooring.

Rodd Company, The, Century Bldg., Pittsburgh, Pa.
Redwood Block Floor. Booklet. 4 x 9 in. Illustrated. Contains technical information on Rodd Floors of California Redwood Blocks. Also specifications.

FURNACES—See Heating Equipment

FURNITURE

Allen, Louis L., 521 Madison Ave., New York, N. Y.
Booklet 5 x 7½ in. Illustrated. Issued quarterly, listing many antique pieces of furniture, old oak and pine paneling and garden figures: fountains, bird baths, sundials, etc.

American Seating Co., 14 E. Jackson Blvd., Chicago, Ill.
Ars Ecclesiastica Booklet. 8½ x 11 in. 48 pp. Illustrations of church fitments in carved wood.
Theatre Chairs. Booklet. 6 x 9 in. 48 pp. Illustrations of theatre chairs.

Fain Manufacturing Company, Norfolk, Virginia.
The Fain Fold Away Dining Room. Booklet 4 pp. 8½ x 11. in. Illustrated. Information to architects and builders on new folding devices with architect's specifications and views of construction. Concise description of merits, use and price.

Kensington Mfg. Company, 14 East 32nd St., New York, N. Y.
Photographs and full description of hand-made furniture in all the period styles furnished promptly in response to a specific inquiry.
Illustrated booklet indicative of the scope, character and decorative quality of Kensington furniture mailed on request.

Servidor Company, 101 Park Avenue, New York, N. Y.
"Servidor Guest Room Doors"—Specification Data, Detail and Descriptive. Size 9½ x 12 in. 4 pages.
Summary of Servidor Service. Summarizes Servidor Service; outlines its merits and advantages and new revenue producing power. Size 7¼ x 10¼ in. 8 pages.
Guests' Service Book. In 4 colors. Sample of 8th Edition. Supplied to hotels, apartment hotels and clubs operating Servidor Service. 7¼ x 10½ in. 27 pages.
Bulletin A-3 "The Eternal Tip." Size 6½ x 9 in. 8 pages.
Bulletin A-8 "Servidors As An Investment." Size 6½ x 9 in. 8 pages.

White Door Bed Company, The, 130 North Wells Street, Chicago, Ill.
Booklet. 8½ x 11 in. 20 pp. Illustrated. Describes and illustrates the use of "White" Door Bed and other space saving devices.

GARDEN ACCESSORIES

Davey Tree Expert Company, The, 907 Elm Street, Kent, Ohio.
"When Your Trees Need The Tree Surgeon." Booklet. 16 pages. 8 x 9¼ in. Illustrated. Lists and explains a number of serious tree troubles of common occurrence; contrasts the scientific methods used by properly trained and conscientious men to remedy these troubles, as compared to the work of unscrupulous or untrained men.

GLASS CONSTRUCTION

Mississippi Wire Glass, 220 Fifth Avenue, New York.
Mississippi Wire Glass. Catalog. 3⅞ x 8½ in. 32 pp. Illustrated. Covers the complete line.

Plate Glass Mfrs. of America. First National Bank Bldg., Pittsburg, Pa.
Plate Glass. Booklet. 5¾ x 9¼ in. 12 pp. Describes manufacture and use of plate glass, with sizes.

GRANITE—See Stone, Building

HARDWARE

Cutler Mail Chute Company, Rochester, N. Y.
Cutler Mail Chute Model F. Booklet. 4x 9¼ in. 8 pp. Illustrated.

HARDWARE—Continued

McCabe Hanger Manufacturing Company, 425 West 25th St., New York, N. Y.
Special Folding and Accordion Door Hangers. Booklet. 6 x 9 in. 8 pp. Illustrated. Booklet with complete description of various types of folding and accordion door hangers. Full size details upon request.

McKinney Mfg. Co., Pittsburgh, Pa.
McKinney Complete Garage Hardware Sets. Catalog. 6¼ x 10 in. 20 pp. Illustrated. Describes full line of complete garage hardware sets for all kinds of entrances, with views of typical entrances and sketches.
McKinney Hinges and Butts. General Catalog. 6¼ x 10 in. Illustrates and describes complete line of McKinney wrought builders' hardware products, including hinges, butts, door hangers and track, latches, garage hardware and specialties.

Richard-Wilcox Mfg. Co., Aurora, Ill.
Distinctive Garage Door Hardware. Booklet. 8½ x 11 inches. 65 pp. Illustrated. Complete information accompanied by data and illustrations on different kinds of garage door hardware.

Sargent & Company, New Haven, Conn.
Sargent Locks and Hardware, Architects' Edition. 9 x 12 in. 762 pages. Illustrated. The latest complete catalogue of Locks and Hardware.
Details to Which Standard Hardware Can Be Applied. Booklet 6 pp. 9 x 12 inches, illustrated. Treats with diagrams, portions of doors and windows to which hardware can be applied.

Vonnegut Hardware Co., Indianapolis, Ind.
Von Duprin Self-Releasing Fire Exit Devices. Catalog. 12F. 8 x 11 in. 41 pp. Illustrated.
"Saving Lives." Booklet. 3¼ x 6 in. 16 pp. Illustrated. A brief outline why Self-Releasing Fire Exit Devices should be used.

HEATING EQUIPMENT

Bryant Heater & Mfg. Co., The, 962 East 72nd Street, Cleveland, O.
Hand Book on Water Heating by Gas. 8½ x 11 in. 16 pp. Illustrated. Bryant Gas Boilers. Bulletin 309, for AIA File No. 29 D2. Contains valuable information on hot water, steam and vapor heating; facts to determine quickly the size of heating plant for any building; also dimensions, weights, fittings furnished and other data of interest. Other descriptive literature available. Comprehensive handbook in preparation.
Hand Book on House Heating by Gas. 8½ x 11 in. 8 pp. Illustrated. Bryant Automatic Hot Water Storage Systems. Bulletin 308, for AIA File No. 30 C1. Contains complete information on water heating systems, weights, dimensions, etc. Other descriptive material available. Comprehensive handbook in preparation.

James B. Clow & Sons, 534 S. Franklin Street, Chicago, Ill.
Gasteam. Catalog. 6 x 9 in. 16 pp. Illustrated. New radiator using gas for fuel.

Cox Stove Company, Abram, American and Dauphin Sts., Philadelphia, Pa.
"Make Wintry Days Happy Days." Folder. 3½ x 6¼ in. 8 pp. Illustrated. Two folders. One describes in detail Novelty Marvel Warm Air Furnaces. The other shows the Pipeless Novelty Marvel.
"Novelty Boilers 76A." Booklet. 6½ x 3¾. 32 pp. Illustrated. Descriptive of entire line of boilers, including Novelty Round Boilers, Side-Feed Sectional Boilers 18-25-30-40 Series, and Carburetor Boilers, 30 and 40 Series; Novelty Water Heaters.

Excelso Specialty Works, 119 Clinton St., Buffalo, N. Y.
Excelso Water Heater. Booklet. 12 pp. 3 x 6 in. Illustrated. Describing the new Excelso method of generating domestic hot water in connection with heating boilers. (Firepot Coil eliminated.)

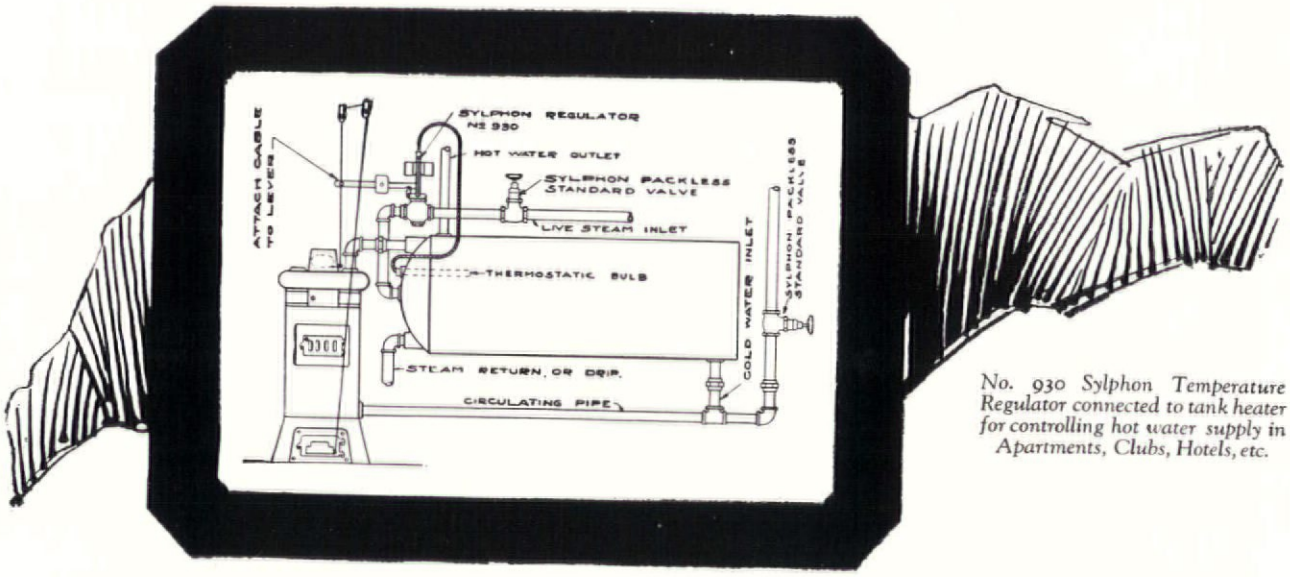
The Fulton Company, Knoxville, Tenn.
Sylphon Temperature Regulators. Bulletin T-103. 8½ x 11 in. 16 pp. Complete data on Sylphon temperature regulators for air and liquids. Catalog 100, complete line Sylphon Heating Specialties.
Damper Regulators, Air and Vent Valves. Catalog No. 100. 3¾ x 6¼ in. Sylphon Damper Regulators for steam, hot water and vapor systems. Sylphon Air and Vent Valves.

Illinois Engineering Co., Racine Ave. at 21st St., Chicago, Ill.
Vapor Heat Bulletin 21. 8½ x 11 in. 32 pp. Illustrated. Contains new and original data on Vapor Heating. Rules for computing radiation, pipe sizes, radiator tappings. Steam table showing temperature of steam and vapor at various pressures, also description of Illinois Vapor Specialties.

Johnson Service Company, 149 Michigan St., Milwaukee, Wis.
Regulation of Temperature and Humidity. Booklet. 11¼ x 8½ in. 64 pp. Illustrated. Describes Johnson system of pneumatic, automatic regulation of temperature and humidity, and illustrates thermostats, valves, air compressors, dampers, and other parts.
Johnson Electric Thermostats, Valves and Controllers. Booklet. 6¼ x 3½ in. 24 pp. Illustrated. Excellent plates showing electric thermostats and controllers.

Kelsey Heating Company, James St., Syracuse, N. Y.
Booklet No. 5. 4 x 9 in. 32 pp. Illustrated. A dealers' booklet showing the Kelsey Warm Air Generator Method of warming and distributing air. Gives dimensions, heating capacities, weights, kind of coal recommended, and shows the mechanical and gravity system of heating homes, churches and schools.
Monroe Pipeless Booklet, 4½ x 8 in. 20 pp. Illustrated.
Monroe Tubular Heater. Booklet. 4½ x 8 in. 20 pp. Illustrated. General Booklet giving capacities, dimensions, weights, etc.
Syracuse Pipeless Booklet. 4½ x 8 in. 12 pp. Illustrated. General Booklet giving sizes and capacities.

Kewanee Boiler Co., Kewanee, Ill.
Kewanee on the Job. Catalog. 8½ x 11 in. 80 pp. Illustrated. Showing installations of Kewanee boilers, water heaters, radiators, etc.
Catalogue No. 78. 6 x 9 in. Illustrated. Describes Kewanee Firebox Boilers with specifications and setting plans.
Catalogue No. 79. 6 x 9 in. Illustrated. Describes Kewanee power boilers and smokeless tubular boilers with specifications.



No. 930 Sylphon Temperature Regulator connected to tank heater for controlling hot water supply in Apartments, Clubs, Hotels, etc.

In summer when the heating plant is shut down you can still have hot water

HOW? This detail drawing gives the answer. It shows how a great saving in coal and labor may be effected by utilizing a small coal fired heater with a No. 930 Sylphon Temperature Regulator, regulating the temperature of the water in the supply tank by attaching the cable to the lever and thus controlling the action of the dampers—no steam being necessary.

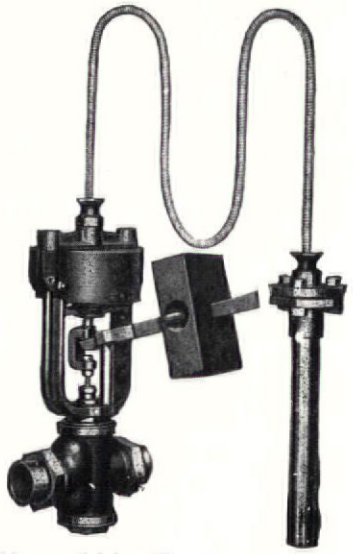
Meet every demand for a controlled hot-water supply in this easy way

When you specify Sylphon Temperature Regulators, you insure your client a lifetime of dependable temperature control service; hot water controlled to the temperature required, and no risk of scalded hands or spitting of steam from open faucets. The simplest, sturdiest regulators on the market, they maintain their unfailing accuracy due to the fact that they use as their expansion member the famous one-piece, seamless Sylphon Bellows. The most sensitive and flexible expansion member known.

And not only are they accurate, but compact and easy to install, requiring no auxiliary power to operate them.

Let our Engineers help you with Temperature Control problems

We invite architects to an open use of the 20 years of gainful experience obtainable in the Fulton laboratories. As a first step, get Bulletin FTR-103.



No. 930 Sylphon Temperature Regulator (lever type) for control of liquids; also No. 931 (spring type)



Temperature Regulators

THE FULTON COMPANY KNOXVILLE, TENN.

NEW YORK CHICAGO DETROIT BOSTON PHILADELPHIA

Representatives in all principal cities in U. S.

European Representatives: Crosby Valve & Engineering Co., Ltd.
41-42 Foley Street, London W. 1., England

Canadian Representatives: Darling Brothers, Ltd.
120 Prince Street, Montreal, Canada

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—*Continued from page 90*

HEATING EQUIPMENT—Continued

Utica Heater Company, Utica, N. Y.
Imperial Round and Square Boilers and Supplies. Catalog. 3½ x 6½ in. Gives complete data on small heaters.
Special Folders. 8½ x 11 in. "Warmth and Comfort," describing the scientifically correct NEW IDEA pipeless furnaces. "SUPERIOR Warm Air Pipe Furnaces," a standard line of heating equipment for over forty years. "SUPER-SMOKELESS Pipe and Pipeless Furnaces," a new and remarkably efficient warm air heater, burning cheap soft coal without smoke—utilizing the principle of the Bunsen Burner.
"Imperial Sectional Square Boilers," for hard coal heating of all types of buildings.
Utica Imperial SUPER-SMOKELESS Boiler. Catalog. 8½ x 11 in. Consists of the following seven bulletins, either loose or bound together: (1) School Heating Bulletin. (2) Public Building Bulletin. (3) Theatre Heating Bulletin. (4) Churches and Religious Institutions. (5) Residences, Apartments and Hotels. (6) Offices, Industrial Buildings and Garages. (7) Technical Bulletin describing patented Bunsen Burner design and construction of the SUPER-SMOKELESS BOILER, which burns the cheapest grades of soft coal smokelessly and operates equally well with hard coal, coke or fuel oil.

HEAT REGULATORS—See Heating Equipment

HEATING AND VENTILATING

Hoffman Specialty Company, Inc., 512 Fifth Ave., New York, N. Y.
Controlled Heat Booklet. 5½ x 8½ in. 28 pp.
The principles of vapor vacuum heat described in simple language for the consumer or layman.
Locking the Door Against the Heat Thief Booklet. 5½ x 8½ in. 16 pp.
Describes No. 2 Hoffman Vacuum Valves and the principle of "Vacuum-izing" a single pipe steam heating system in consumer language.

Thatcher Furnace Co., 39-41 St. Francis St., Newark, N. J.
Thatcher Heating and A Few Installations. 25 pp. 6 x 9 in. Illustrated. Contains photo's of various types of buildings in which Thatcher Heaters are installed together with cuts and descriptions of Thatcher Heaters.
History of Heat. 15 pp. 8 x 5 in. Illustrated. Tracing the evolution of heat from its earliest stages.

United States Radiator Corporation, Detroit, Mich.
The Complete Line Catalog. 6⅜ x 3¼ in. 270 pp. Illustrated. Giving complete information and engineering data on Capital and Winchester Boilers.

HOISTS—See Ash Hoists

HOLLOW TILE—See Tile, Hollow

HOSPITAL EQUIPMENT

Betz Company, Frank S., Hammond, Ind. 30 E. Randolph St., Chicago, Ill.
Hospital Book. 7½ x 10½ in. 212 pp. Illustrated profusely. Lists and describes with prices and illustrations a complete line of steel hospital furniture.

The International Nickel Company, 67 Wall St., New York, N. Y.
Hospital Applications of Monel Metal. Booklet. 8½ x 11½ in. 16 pp. Illustrated. Gives types of equipment in which Monel Metal is used, reasons for its adoption, with sources of such equipment.

The Kny-Scheerer Corporation of America, 119 Seventh Ave., New York.
Hospital Equipment, 16th Edition. 7¼ x 10½ in. 232 pp. Illustrated. Complete description of Hospital and Surgical Furniture, Hospital Appliances including Operating Tables, Cabinets, Sterilizers for Water, Dressing and Instruments, also Hydrotherapeutic Apparatus.
Surgical Sundries. P/2 Edition. Booklet. 7⅜ x 10½ in. 48 pp. Illustrated. A complete line of glassware, enamelware, rubber goods, restraint apparatus, instrument sterilizers, sputum cups, wheel chairs and sick room comforts.
Electro-Medical. 25th Edition. Booklet. 7¼ x 10½ in. 160 pp. Illustrated. A complete line of Albee Bone Sets, Apparatus for AC and DC, Cystocopes, Heat Magnets, Vibrators, Compressors, Electric Light Baths, High Frequency Apparatus and X-Ray Apparatus and Accessories.

INCINERATORS

The Kerner Incinerator Company, 1029 Chestnut St., Milwaukee, Wis.
The Kernerator. Booklet. 5½ x 9¼ in. 40 pp. Illustrated. Describes principle and design of the Kernerator, guarantee and service, also gives illustrations of buildings where it has been installed and testimonials.
Sanitary Elimination of Household Waste. Booklet. 4 x 9 in. 16 pp. Illustrated. Shows process, installations and advantages of the Kernerator.
Sanitary Disposal of Waste in Hospitals. Booklet. 4 x 9 in. 12 pp. Illustrated. Shows how this necessary part of hospital service can be taken care of by the Kernerator.

INSULATION

Bishopric Manufacturing Co., 103 Este Ave., Cincinnati, Ohio.
Specifications and Working Details. Booklet. 7¼ x 10½ in. Illustrated. Contains plainly written instructions for the use of stucco, stucco base, plaster base and insulation base.

Philip Carey Co., The, Cincinnati, Ohio.
Carey Asbestos and Magnesia Products. Catalog. 6 x 9 in. 72 pp. Illustrated.

Johns-Manville, Inc., Madison Ave., and 41st St., New York, N. Y.
Johns-Manville Service to Power Users. Catalog. 8½ x 11 in. 150 pp. Illustrated. Contains valuable data on all forms of insulations, packings, steam traps, high temperature cements, brake locks and linings, also general technical data.

United States Mineral Wool Co., 280 Madison Ave., New York.
The Uses of Mineral Wool in Architecture. Booklet. 5¼ x 6⅝ in. 24 pp. Illustrated. Describes properties of mineral wool as insulation against heat, frost, sound. Specifications and section drawing for use as a fireproofing. Rule for estimate and cost.

KITCHEN EQUIPMENT

Betz Company, Frank S., Hammond, Ind. 30 E. Randolph St., Chicago, Ill.
Kitchunit. Booklet. 7 x 10½ in. 4 pp. Illustrated. This illustrates and describes, including specifications, the Betzco All-Steel Kitchunits. A space-saving equipment that lowers building costs.

Colt's Patent Fire Arms Mfg. Company, Hartford, Conn.
AUTOSAN Dish and Silver Cleaning Machines. Booklets. 6 x 9 in. Describing rotary table type and conveyor type machines.

Wm. M. Crane Company, 16-20 West 32nd St., New York, N. Y.
VULCAN Gas Ranges and Appliances. Booklet. 5 x 8 in. 50 pp. Illustrated. Describes complete line, including VULCAN SMOOTH TOP Compact Cabinet Gas Ranges for kitchens in the home.
VULCAN Gas Equipment for Hotels, Hospitals, Restaurants, etc. Booklet. 5 x 8 in. 45 pp. Illustrated. Equipment for heavy-duty cooking requirements, with information of value to architects in planning kitchens.

The International Nickel Company, 67 Wall St., New York, N. Y.
Hotels, Restaurants and Cafeteria Applications of Monel Metal. Booklet. 8½ x 11 in. 32 pp. Illustrated. Gives types of equipment in which Monel Metal is used, with service data and sources of equipment.

Pick & Company, Albert, 208 W. Randolph St., Chicago, Ill.
School Cafeterias. Portfolio. 17 x 11 in. 44 pp. Illustrated. An exhaustive study of the problems of school feeding, with copious illustrations and blue prints. Very valuable to the architect.
School Cafeterias. Booklet. 9 x 6 in. Illustrated. The design and equipment of school cafeterias with photographs of installation and plans for standardized outfits.
Kitchen Equipment. Booklet. 9 x 6 in. Illustrated. Photographs and descriptions of Hotel, Club and Hospital kitchens with treatise on plans and equipment of efficient kitchens.
Electric Kitchen Equipment. Booklet. 8½ x 11½ in. Illustrated. Photographs and descriptions of PIX "Master-Made" ranges, ovens, etc., for Hotels and Restaurants.
Hotel, Apartment Building, Club and Institution Installations. Portfolio. 17 x 11 in. 100 pp. Shows, mostly by plates, how the Albert Pick Company equips hotels completely from top to bottom.
Equipment for Cafeterias, Lunch Rooms, Restaurants, and Dining Rooms Portfolio. 17 x 11 in. 86 pp. Illustrated. The last word in Cafeteria equipment to meet all requirements

Thatcher Furnace Co., 39-41 St. Francis St., Newark, N. J.
Range with Personality. 15 pp. 8 x 5 in. Illustrated. Explains the famous Thatcher "Twin-Fire" combination coal and gas range.
Thatcher is the Heater for that Building. 8 pp. 8 x 9 in. Illustrated. Contains cuts, dimensions, and descriptions of Thatcher Heaters for architects use.

LABORATORY EQUIPMENT

Kewaunee Manufacturing Company, 141 Lincoln St., Kewaunee, Wis.
Kewaunee Book of Laboratory Furniture. Catalogue. 7 x 10 in. 408 pp. Illustrated. Science and Vocational Laboratory Furniture for schools, colleges, technical institutes, hospitals, etc., including floor plans, illustrations of buildings and equipped laboratories, illustrations of equipment engineering data for mechanical ventilation and illustrations of special plumbing fixtures for laboratory use.

LANTERNS

Todhunter, Arthur, 414 Madison Avenue, New York.
Hand Wrought Lanterns. Booklet. 5¼ x 6¾ in. 20 pp. Illustrated in Black and White. With price list. Lanterns appropriate for exterior and interior use, designed from old models and meeting the requirements of modern lighting.

LATH, METAL AND REINFORCING

The General Fireproofing Company, Youngstown, Ohio.
Herringbone Metal Lath Handbook. 8½ x 11 in. 32 pp. Illustrated. Standard specifications for Cement Stucco on Herringbone Rigid Metal Lath and interior plastering.

National Steel Fabric Company, Pittsburgh, Pa.
Folder. 8½ x 11 in. 6 pp. Illustrated. Describes National Stucco-Plaster Reinforcement, a base for exterior stucco and interior plastering, composition flooring, etc., with photographs and drawings.

Northwestern Expanded Metal Co., 934 Old Colony Building, Chicago, Ill.
Fireproof Construction Catalog, 6 x 9 in. 72 pp. Illustrated. Handbook of practical suggestions for architects and contractors. Describing Nemco Expanded Metal Lath.

LAUNDRY CHUTES

The Pfaudler Company, 217 Cutler Building, Rochester, N. Y.
Pfaudler Glass-Lined Steel Laundry Chutes. Booklet. 5⅛ x 7⅜ in. 16 pp. Illustrated. A beautifully printed brochure describing in detail with architects' specifications THE PFAUDLER GLASS LINED STEEL LAUNDRY CHUTES. Contains views of installations and list of representative ones.

LAVATORY ACCESSORIES

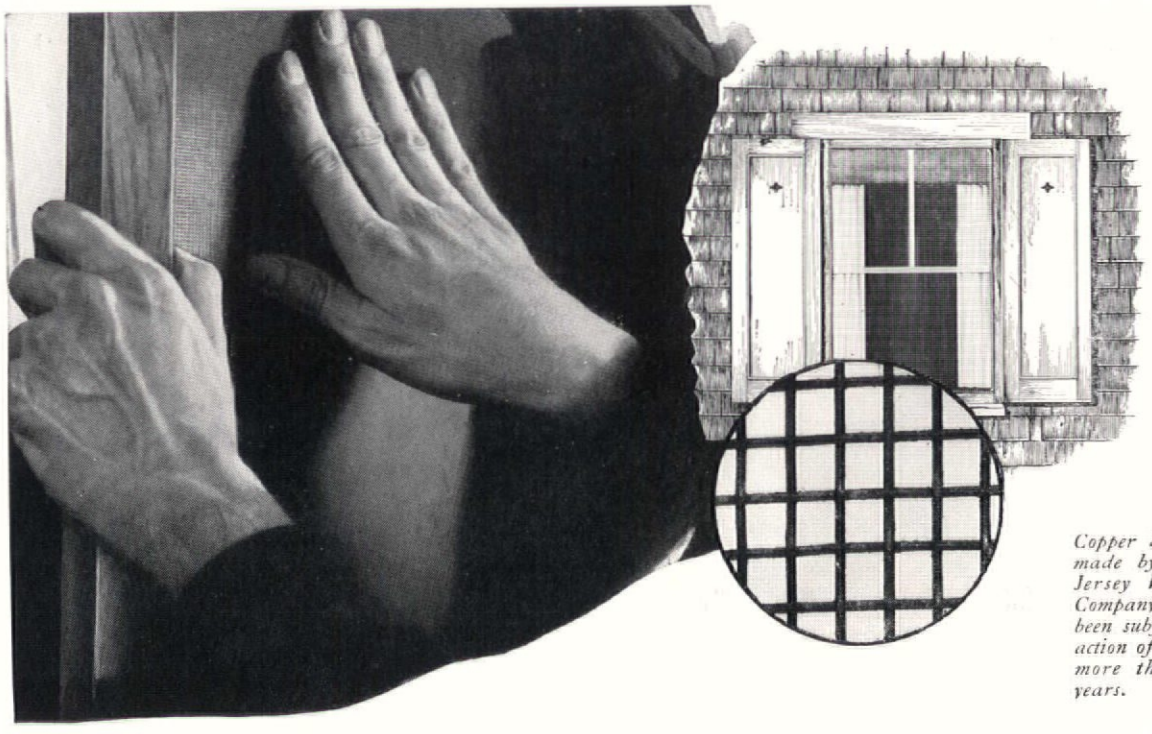
Cortes Ward Company, Inc., 245 West 55th St., New York, N. Y.
Literature to show how an appreciation service may be rendered to employees or patrons through the use of Lily Pads and Lily Vending Machines.

MAIL CHUTES

Cutler Mail Chute Company, Rochester, N. Y.
Cutler Mail Chute Model F. Booklet. 4 x 9¼ in. 8 pp. Illustrated.

MANTELS

Arthur Todhunter, 414 Madison Ave., New York, N. Y.
Mantels and Fireplace Equipment. Booklet. 8½ x 11 in. Illustrated. Separate sheet plates showing mantels installed and furnished, also andirons and grates grouped with suitable pieces, also lanterns, weather-vanes and hand-wrought hardware. All sizes and descriptions given on each plate.



Copper Screen Cloth made by The New Jersey Wire Cloth Company, which has been subjected to the action of salt air for more than twelve years.

A Copper Screen Cloth That Will Not Stretch

GOOD copper screen insect cloth is universally recognized as the best and most economical material that can be used for door, window and porch screens.

Any doubts regarding the efficiency of copper screen cloth which still may exist in the minds of some architects arise from the fact that ordinary pure copper cloths are too soft and pliable. They stretch and bulge.

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Copper Screen Cloth

Made of Copper 99.8% Pure

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—*Continued from page 92*

MARBLE

The Georgia Marble Company, Tate, Ga. New York Office, 1328 Broadway.
Why Georgia Marble is Better. Booklet. 3⅜ x 6 in. Gives analysis, physical qualities, comparison of absorption with granites, opinions of authorities, etc.
Convincing Proof. Booklet. 3⅜ x 6 in. 8 pp. Classified list of buildings and memorials in which Georgia Marble has been used, with names of Architects and Sculptors.

Tompkins-Kiel Marble Company, 505 Fifth Ave., New York, N. Y.
Reproductions in natural colors of imported and domestic marbles and stone for interior and exterior uses.
Bulletins. 9¾ x 12¾ in. illustrating buildings of various types in which Tompkins-Kiel Marble Company's imported and domestic marbles and stone have been used.

METAL LATH—See Lath, Metal and Reinforcing

METALS

American Sheet & Tin Plate Co., Frick Building, Pittsburgh, Pa.
Reference Book. Pocket Ed. 2½ x 4½ in. 168 pp. Illustrated. Covers the complete line of Sheet and Tin Mill Products.
Apollo and Apollo-Keystone Galvanized Sheets. Catalog. 8½ x 11 in. 20 pp. Illustrated.
Research on the Corrosion Resistance of Copper Steel. Booklet. 8½ x 11 in. 24 pp. Illustrated. Technical information on results of atmospheric corrosion tests of various sheets under actual weather conditions.

Bridgeport Brass Company, Bridgeport, Conn.
Seven Centuries of Brass Making. Booklet. 10½ x 8 in. 78 pp. Illustrated in color. A brief history of the ancient art of Brass Making and its early (and even recent) method of production—contrasted with that of the Electric Furnace Process—a twentieth century achievement of the Bridgeport Brass Company.
Tested High-Speed Brass Rod. Booklet 10½ x 8 in. 16 pp. Illustrated. Short treatise on the manufacture of Brass Rod for use in Screw Machines, with particular reference to improvements originated by the Bridgeport Brass Company.

The International Nickel Company, 67 Wall St., New York, N. Y.
The Choice of a Metal. Booklet. 6¼ x 3¼ in. 16 pp. Illustrated. Monel Metal—its qualities, use and commercial forms, briefly described.

METAL TRIM—See Doors and Trim, Metal

MILLWORK—See also Wood

Curtis Companies Service Bureau, Clinton, Iowa.
Architectural Interior and Exterior Woodwork, Standardized. Book. 9 x 11½ in. 240 pp. Illustrated. This is an Architects' Edition of the complete catalog of Curtis Woodwork, as designed by Trowbridge & Ackerman. Contains many color plates.
Better Built Homes, Vols. XV-XVIII incl. Booklet. 9 x 12 in. 40 pp. Illustrated. Designs for houses of five to eight rooms, respectively, in several authentic types, by Trowbridge & Ackerman, architects for the Curtis Companies.
Curtis Details. Booklet. 19½ x 23½ in. 20 pp. Illustrated. Complete details of all items of Curtis woodwork, for the use of architects.

Roddis Lumber & Veneer Company, Marshfield, Wis.
Roddis Doorman Booklet. 10¼ x 7¼ in. 12 pp. Illustrated. Describes and illustrates the use of Roddis Doors for residences, clubs, hotels, etc.

Hartmann-Sanders Company, 2155 Elston Avenue, Chicago, Ill.
Column Catalog. 7½ x 10 in. 48 pp. Illustrated. Contains prices on columns 6 to 36 in. Diameter various designs and illustrations of Columns and installations.
The Pergola Catalog. 7½ x 10 in. 64 pp. Illustrated. Contains illustrations of Pergola lattices. Garden Furniture in Wood and Cement. Garden accessories.

MORTAR COLORS

Clinton Metallic Paint Co., Clinton, N. Y.
Clinton Mortar Colors. Folder. 8½ x 11 in. 4 pages. Illustrated in color, gives full information concerning Clinton Mortar Colors with specific instructions for using them.
Color Card. 6½ x 3¼ in. Illustrates in color the ten shades of which Clinton Mortar Colors are manufactured.

OFFICE SUPPLIES

Chas. M. Higgins & Co., 271 Ninth Street, Brooklyn, N. Y.
Descriptive Catalog. 3½ x 5½ in. 27 pages. Illustrated. Contains description and prices of Higgins Inks and Adhesives. Color Card illustrating various colors of the drawing inks supplied separate, size 3½ x 6¼.

PAINTS, STAINS, VARNISHES AND WOOD FINISHES

Cabot, Inc., Samuel, Boston, Mass.
Cabot's Creosote Stains, Booklet. 4 x 8½ in. 16 pp. Illustrated.

Eagle-Picher Lead Company, The, 208 S. La Salle St., Chicago, Ill.
Specifications for Painting Structural Steel and Iron. Booklet. 9½ x 11½ in. 7 pp. Not Illustrated. A set of specifications which embody the latest developments in this field as revealed by the research department of The Eagle-Picher Lead Company in the light of their eighty-one years' experience, enclosed in folder 13 x 2, ready for filing.
Fighting Rust with Sublimed Blue Lead. Book. 80 pp. Illustrated. 5½ x 8½ in. An excellent addition to one's technical library, well bound in a stiff cover. An assemblage of scientific facts concerning the theory of corrosion of iron and steel and the prevention of rust with Sublimed Blue Lead.
Chemical Analysis of Lead and Its Compounds. Book. 5½ x 8½ in. 160 pp. Illustrated. A treatise on the latest methods of analysis adopted by the leading laboratories which must examine lead and its compounds from an analytical standpoint.
Lead Tree Chart. 9 x 11½ in. 1 p. Framed Chart. Not illustrated. A chart reflecting all the uses of lead, from crude ore to the finished products.

PAINTS, STAINS, VARNISHES & WOOD FINISHES—Continued

Zinc Tree Chart. 9 x 11½ in. 1 p. Framed Chart. Not Illustrated. A chart reflecting all the uses of zinc—from the ore to the finished product.
Rust-proofing Pamphlet. 3 x 5 in. 16 pp. Illustrated. Of interest to anyone connected in any way with steel construction.

The Glidden Company, Cleveland, Ohio.
"More Daylight." 8 x 10½ in. 20 pp. Portraying by illustrations and text the need and methods of modern mill painting.

The Hockaday Company, 1823 Carroll Ave., Chicago, Ill.
Paint Mileage. Book. 8 x 10½ in. 56 pp. Illustrated. A reference book on interior painting. Describes use of paint over all sorts of surfaces, with illustrations of buildings where Hockaday has been specified. Hockaday service explained.
Solving Your Paint Problems. Booklet. 8½ x 11 in. 44 pp. Illustrated. Describes use of Hockaday Paint in Industrial Buildings, particularly in textile mills. Details of Hockaday service and specifications.

Martin Varnish Co., 2500 Quarry St., Chicago, Ill.
Architectural Specifications. Booklet. 8½ x 11 in. 20 pp. Illustrated. Complete guide for Architects in specifying Martin Varnish Products.
Your Floors. Booklet. 5 x 7 in. 20 pp. Illustrated. Explains fully how to finish all kinds of floors and woodwork with Martin's Pure Varnish.

National Lead Company, 111 Broadway, New York, N. Y.
Handy Book on Painting. Book. 5½ x 3¼ in. 100 pp. Gives directions and formulas for painting various surfaces of wood, plaster, metal, etc., both interior and exterior.
Red Lead in Paste Form. Booklet. 6¼ x 3½ in. 16 pp. Illustrated. Directions and formulas for painting metals.
Came Lead. Booklet. 8¾ x 6 in. 12 pp. Illustrated. Describes various styles of lead cames.
Cinch Anchoring Specialties. Booklet. 6 x 3½ in. 20 pp. Illustrated. Describes complete line of expansion bolts.

The Ripolin Company, Cleveland, Ohio.
Ripolin Specifications. Book. 8 x 10¼ in. 12 pp. Complete specifications and general instructions for the application of Ripolin, the original Holland enamel paint. Also directions for proper finishing of wood, metal, plaster, concrete, brick and other surfaces.
"Why Ripolin Has an International Reputation." 8 x 10¾ in. 24 pp. Designed for the architect's files to illustrate the many varied uses of Ripolin Enamel Paint in all parts of the world. Profusely illustrated.

Ruberoid Co., The (formerly the Standard Paint Co.), 95 Madison Avenue, New York, N. Y.
Preservative Coatings. Booklet. 6 x 9 in. 15 pp. Illustrated. Presents in a concise manner the properties and uses of the Ruberoid Company's various paint preparations.

Sherwin-Williams Company, 601 Canal Rd., Cleveland, Ohio.
Painting Concrete and Stucco Surfaces. Bulletin No. 1. 8½ x 11 in. 8 pp. Illustrated. A complete treatise with complete specifications on the subject of Painting of Concrete and Stucco Surfaces. Color chips of paint shown in bulletin.
Enamel Finish for Interior and Exterior Surfaces. Bulletin No. 2. 8½ x 11 in. 12 pp. Illustrated. Thorough discussion including complete specifications for securing the most satisfactory enamel finish on interior and exterior walls and trim.
Painting and Decorating of Interior Walls. Bulletin No. 3. 8½ x 11 in. 20 pp. Illustrated. A wonderful reference book on Flat Wall Finish including texture effects which are taking the country by storm. Every architect should have one on file.
Protective Paints for Metal Surfaces. Bulletin No. 4. 8½ x 11 in. 12 pp. Illustrated. A highly technical subject treated in a simple, understandable manner.

Sonneborn Sons, Inc., L., Dept. 4, 116 Fifth Avenue, New York.
Paint Specifications. Booklet. 8½ x 10¾ in. 4 pp.

PANELING—See Millwork

PARTITIONS

Improved Office Partition Company, 25 Grand St., Elmhurst, L. I.
Telesco Partition, Catalog. 8¼ x 11 in. 14 pp. Illustrated. Shows typical offices laid out with Telesco partitions, cuts of finished partition units in various woods. Gives specifications and cuts of buildings using Telesco.
Detailed Instructions for erecting Telesco Partitions. Booklet. 24 pp. 8½ x 11 in. Illustrated. Complete instructions, with cuts and drawings, showing how easily Telesco Partition can be erected.

Richards-Wilcox Mfg. Co., Aurora, Ill.
Partitions. Booklet. 7 x 10 in. 32 pp. Illustrated. Describes complete line of track and hangers for all styles of sliding, parallel, accordion and flush door partitions.

The J. G. Wilson Corporation, 11 East 36th St., New York, N. Y.
Rolling Partitions, Hygienic and Disappearing Door Wardrobes. Booklet. 6 x 9 in. 32 pp. Illustrated. Describes rolling partitions, particularly in churches and schools, and wardrobes as installed in schools and public institutions.

Circle "A" Products Corporation, Champaign, Ill.
Catalog. 11⅛ x 8⅝ in. 28 pp. Illustrated. Gives information data and illustration of Circle "A" Sectional Office Partitions.

PIPE

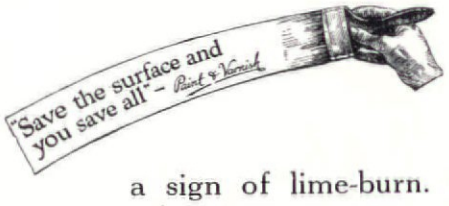
American Brass Company, Waterbury, Conn.
Bulletin B-1, "Brass Pipe for Water Service." 8½ x 11 in. 28 pp. Illustrated. Gives schedule of weights and sizes (I.P.S.) of seamless brass and copper pipe, shows typical installations of brass pipe, and gives general discussion of the corrosive effect of water on iron, steel and brass pipe.

Bridgeport Brass Company, Bridgeport, Conn.
Bulletin No. 15. Brass Pipe and Piping. Booklet. 8 x 10½ in. 48 pp. Illustrated. When and how to use Brass Pipe. Brass pipe compared with iron and steel pipe for hot water service. Corrosion. Description of manufacture of Bridgeport Plumrite Brass Pipe.



This "Hunk of Plaster"—

was rescued from oblivion recently during the remodeling of the Hubbell Building, Des Moines, Iowa. As a hunk of plaster, it had no value—but as a PROOF of the lasting qualities of Hockaday Paint it was worth its weight in gold.



The walls of which it originally was a part have for over ten years been covered with Hockaday paint. These walls have been washed, scrubbed and cleaned enough times to "erase" any ordinary paint; still the smooth surface, the life, was there. There wasn't a sign of lime-burn. And the paint looked good for many years more.

That's Hockaday Paint quality; honest, dependable, covering more surface better, quantity for quantity, and establishing the prestige for good judgment in paint of every one who specifies or uses it.

Write for our big illustrated "Paint Mileage" Book. Free to you if request is received on your letterhead.

Hockaday is a different paint. It comes in two parts—Body and Reducer. For complete specifications see page 1352, Sweet's Catalog

THE HOCKADAY COMPANY

1823-1829 Carroll Avenue - - - - - - CHICAGO

HOCKADAY

THE WASHABLE PAINT FOR ALL INTERIORS

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—*Continued from page 94*

PIPE—Continued

A. M. Byers Company, 235 Water St., Pittsburgh, Pa.
Bulletin 26-A. "What is Wrought Iron?" 8 x 10¾ in. 40 pp. Illustrated. Descriptions of materials and processes employed in manufacturing Byers genuine wrought iron pipe. Factors influencing corrosion. Gives table of pipe sizes, weights, dimensions, tests, etc., and tabulated records of the life of iron and steel pipe in various kinds of service.
Bulletin 30. An Investigation of Pipe Corrosion in Hot Water Service. 8 x 10¾ in. 20 pp. Illustrated. Shows service records of iron, steel and brass pipe used for hot and cold water supply lines in 129 Pittsburgh Apartment Buildings.
Bulletin 32. Corrosion of Wright Iron, Cast Iron and Steel Pipe in House Drainage Systems. 8 x 10¾ in. 32 pp. Illustrated. Data obtained through investigations conducted in New York and Chicago by Dr. Wm. P. Gerhardt, C. E., and Thomas J. Claffy, Asst. Chief San. Inspector city of Chicago.
Bulletin 38. The installation Cost of Pipe. 32 pp. 8 x 10¾ in. Illustrated. Cost analysis of 20 different pipe installations, in power and industrial plants, office buildings, hotels, residences, etc.

Clow & Sons, James B., 534 S. Franklin Street, Chicago, Ill.
Catalog "A," 4 x 6½ in. 700 pp. Illustrated. Shows a full line of steam, gas and water works supplies.

National Tube Co., Frick Building, Pittsburgh, Pa.
"National" Bulletin No. 2. Corrosion of Hot Water Pipe. (8½ x 11 in. 24 pp.) Illustrated. In this bulletin is summed up the most important research dealing with hot water systems. The text matter consists of seven investigations by authorities on this subject.
"National" Bulletin No. 3. The Protection of Pipe Against Internal Corrosion (8½ x 11 in. 20 pp.) Illustrated. Discusses various causes of corrosion and details are given of the deactivating and deaerating systems for eliminating or retarding corrosion in hot water supply lines.
"National" Bulletin No. 25. "National" Pipe in Large Buildings. 8½ x 11 in. 88 pp. This bulletin contains 254 illustrations of prominent buildings of all types, containing "National" Pipe and considerable engineering data of value to architects, engineers, etc.
Modern Welded Pipe. Book of 88 pages (8½ x 11 in.), profusely illustrated with halftone and line engravings of the important operations in the manufacture of pipe.

Reading Iron Company, Reading, Pa.
Reading Genuine Wrought Iron Pipe in the Making and in Service. Bulletin No. 1. 8½ x 11 in. 32 pp. Illustrated. History of the Reading Iron Company. Origin of wrought iron—description of each process of manufacture of both buttweld and lapweld pipe —Reading Pipe in various fields.
Book of Standards. Booklet. 5 x 7 in. 48 pp. Illustrated. Complete tables showing dimensions, tests and list prices on each of the 552 different kinds of Reading Tubular goods. Two simple tests for distinguishing genuine wrought iron pipe.
The Painted Molecule. Booklet. 4 x 9 in. 8 pp. Illustrated. A brief, non-technical description of the reasons for the longer life of Reading Iron Pipe, with instances of actual service.
The Ultimate Cost, Booklet. 5¼ x 7¼ in. 24 pp. Illustrated in two colors. A comparison in actual figures of the initial cost and the ultimate cost of plumbing and heating systems in several kinds of homes.

Grinnell Company, 285 West Exchange Street, Providence, R. I.
Grinnell Bulletin Booklet. 10½ x 7¼ in. Illustrated. Issued monthly. Describes and illustrates the different Grinnell products.

PLUMBING EQUIPMENT

American Brass Company, Waterbury, Conn.
Benedict Nickel. Illustrated pamphlet descriptive of Benedict Nickel White Metal for high-grade plumbing fixtures.

Bridgeport Brass Company, Bridgeport, Conn.
Plumbing Supplies. Booklet. 10½ x 8 in. 20 pp. Illustrated. Describes a few of the different plumbing supplies manufactured by the Bridgeport Brass Company.

Brunswick-Balke-Collender Co., 623 S. Wabash Avenue, Chicago, Ill.
Whale-bone-ite Seat. Booklet. 3½ x 6¼ in. 4 pp. Illustrated.
Whale-bone-ite Seat. Booklet. 3½ x 6¼ in. 8 pp. Illustrated.

Clow & Sons, James B., 534 S. Franklin Street, Chicago, Ill.
Catalog "M." 9¼ x 12 in. 184 pp. Illustrated. Shows complete line of plumbing fixtures for Schools, Railroads and Industrial Plants.

Crane Company, 836 S. Michigan Avenue, Chicago, Ill.
Crane Products in World Wide Use. Catalog. 5 x 9½ in. 24 pp. Illustrated.
Plumbing Suggestions for Home Builders. Catalog. 3 x 6 in. 80 pp. Illustrated.
Plumbing Suggestions for Industrial Plants. Catalog. 4 x 6¼ in. 43 pp Illustrated.

Douglas Co., The John, Cincinnati, Ohio.
Catalog "C." 10½ x 8 in. 200 pages illustrated. Illustrates and describes the Douglas complete line of China Sanitary plumbing fixture.
Booklet. "Douglas suggests for your home." 6 x 3½ in. 39 pp. Illustrated.

Eljer Company, 15 E. Van Buren St., Chicago, Ill.
The Standardized Sixteen. Booklet. 3¾ x 6¾ in. 16 pp. Illustrated. Describes fully the complete Eljer line of standardized plumbing equipment, with diagrams, weights, measurements and copious illustrations.
Standardized Sixteen. Circular. 3¾ x 6¾ in. 18 pp. Illustrated.
Complete catalog. 3¾ x 6¾ in. 104 pp. Illustrated.

Kohler Co., Kohler, Wis.
Catalog F. 7½ x 10⅝ in. 216 pp. Illustrates and describes the complete line of Kohler trade-marked plumbing ware.
Roughing-In Measurement Binder. 5 x 8 in., containing loose leaf sheets on all staple fixtures.

Maddock's Sons Company, Thomas, Trenton, N. J.
Catalog K. 10⅞ x 7⅞ in. 242 pp. Illustrated. Complete data on vitreous china plumbing fixtures with brief history of Sanitary Pottery.

PLUMBING EQUIPMENT—Continued

Speakman Company, Wilmington, Del.
Speakman Showers and Fixtures. Catalog. 4½ x 7½ in. 250 pp. Illustrated. Catalog of Modern Showers and Brass Plumbing Fixtures, with drawings showing layouts, measurements, etc.
Toned Up in Ten Minutes. Booklet. 7½ x 10½ in. 16 pp. Illustrated. Modern Showers and Washups for Industrial Plants, showing the sanitary method of washing in running water.

PUMPS

Goulds Mfg. Co., The, Seneca Falls, N. Y.
Set of Twenty Bulletins, 7½ x 10⅝ in. 12 to 32 pp. each. Illustrated. Covers complete line of power and centrifugal pumps for all services.

Kewanee Private Utilities Co. 442 Franklin St., Kewanee, Ill.
Bulletin E. 7¾ x 10¾ in. 32 pp. Illustrated. Catalog. Complete descriptions, with all necessary data, on Standard Service Pumps, Indian Brand Pneumatic Tanks, and Complete Water Systems, as installed by Kewanee Private Utilities Co.

RAMPS

Ramp Buildings Corporation, 115 Broad St., New York, N. Y.
The d'Humy Motoramp System of Building Design. Booklet. 8½ x 11 in. 20 pp. Illustrated. Describes the d'Humy system of ramp construction for garages, service buildings, factories, warehouses, etc., where it is desirable to drive motor vehicles or industrial tractors under their own power from floor to floor.
Storage Efficiency of Multi-Floor Garages. Leaflet. 8½ x 11 in. 4 pp. Illustrated. A brief discussion of comparative storage efficiencies of elevator garages, ordinary ramp garages, and d'Humy Motoramp garages.
Visibility. Pamphlet. 8½ x 11 in. 2 pp. Illustrated. Discussion of visibility feature of d'Humy Motoramp System with reference to illustration of one particular installation.
Series of Informal Bulletins on Garage Design. Sent upon request.

REINFORCED CONCRETE—See also Construction, Concrete

The General Fireproofing Company, Youngstown, Ohio.
Self-Sentering Handbook. 8½ x 11 in. 36 pp. Illustrated. Methods and specifications on reinforced concrete floors, roofs and floors with a combined form and reinforced material.

Truscon Steel Company, 250 W. Lafayette Blvd., Detroit, Mich.
Shearing Stresses in Reinforced Concrete Beams. Booklet. 8½ x 11 in. 12 pp

North Western Expanded Metal Company, Chicago, Ill.
"Designing Data" Book. 6 x 9 in. 96 pp. Illustrated. Covers the use of Econo Expanded Metal for various types of reinforced concrete construction.

ROOFING

American Brass Company, Waterbury, Conn.
Service Sheets 43-1 and 43-2, standard specifications and methods of laying copper roofings, flashings, hips, valleys, decks, gutters and leaders.

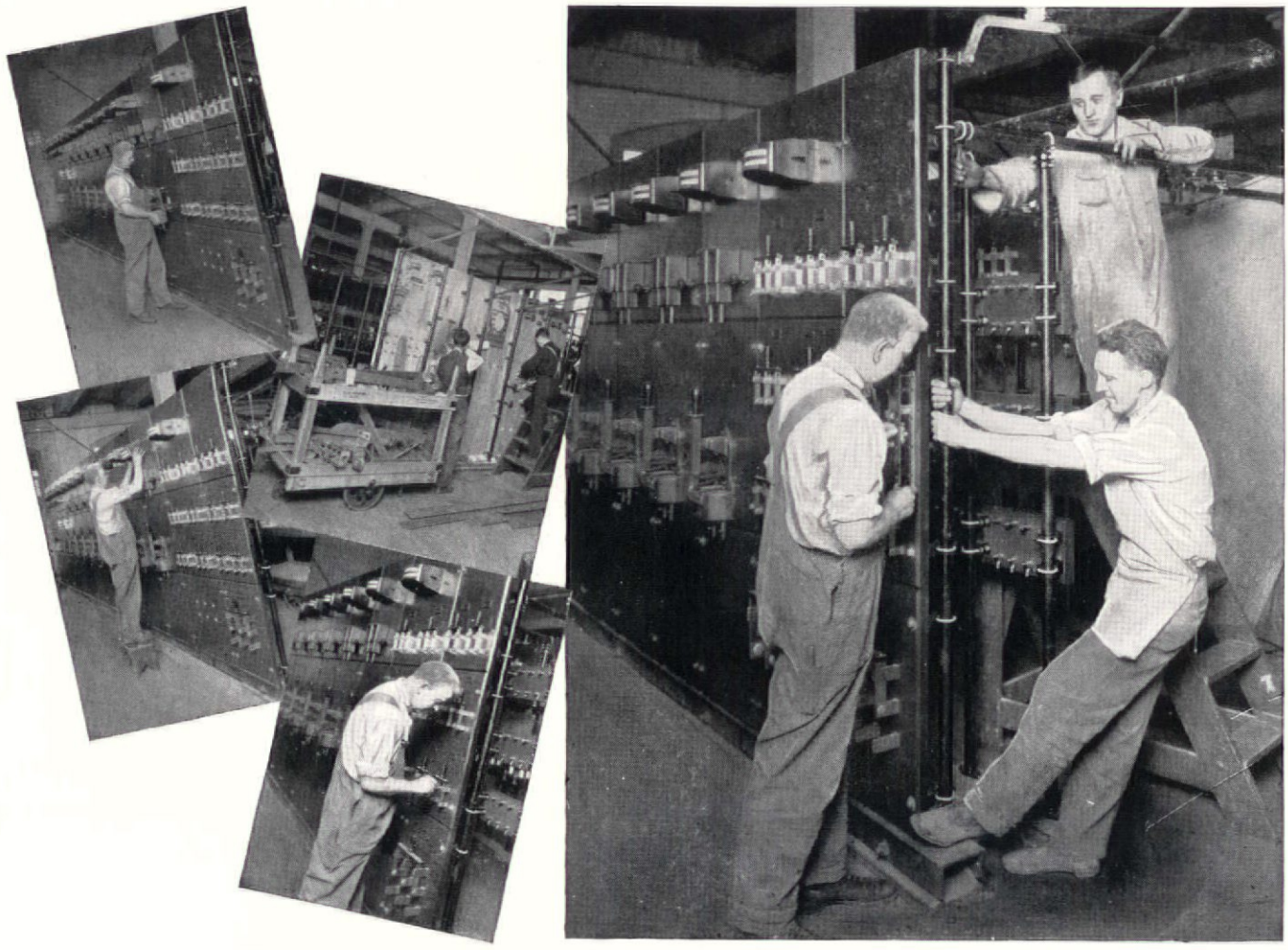
American Sheet & Tin Plate Co., Frick Bldg., Pittsburgh, Pa.
Better Buildings. Catalog. 8½ x 11 in. 32 pp. Describes Corrugated and Formed Sheet Steel Roofing and Siding Products, black, painted and galvanized, with directions for application of various patterns of Sheet Steel Roofing in various types of construction.
Copper—Its Effect Upon Steel for Roofing Tin. Catalog. 8½ x 11 in. 28 pp. Illustrated. Describes the merits of high grade roofing tin plates and the advantages of the copper-steel alloy.
"The Testimony of a Decade." Booklet. 8½ x 11 in. 16 pp., with Graphic Chart and illustration showing losses to various Iron and Steel Sheets for roofing, from atmospheric corrosion.

Federal Cement Tile Co., 110 So. Dearborn St., Chicago, Ill.
The Indestructible Roof. Booklet. 10 x 13 in. 32 pp. Illustrated. Illustrates and describes the installation of permanent concrete interlocking tile, tile with glass insets, flat tile and channel tile, on all types of industrial plants and other buildings with flat and pitched surfaces.
Standards. Booklet. 8½ x 11 in. 40 pp. Illustrated with full-page drawings. Gives full details of all forms of roof construction of steel structure, ridge and gutter construction. purlin arrangement, spacing, etc., for standard roofs.

Johns-Manville, Inc., Madison Ave. & 41st St., New York, N. Y.
Johns-Manville Building Materials. Book. 8½ x 11 in. 100 pp. Illustrated. A comprehensive catalog of various types of roofing for all forms of construction. Details of wall, floor and ceiling insulation; asbestos wood for fireproof construction; waterproofing, etc.
Johns-Manville Asbestos Shingles. Booklet. 8½ x 11 in. 24 pp. Illustrated. This booklet is profusely illustrated in colors, showing some very artistic blends of asbestos shingles with various types of architecture. Contains many valuable suggestions for the architect.

Ludowici-Celadon Company, 104 So. Michigan Ave., Chicago, Ill.
"Ancient" Tapered Mission Tiles. Leaflet. 8½ x 11 in. 4 pp. Illustrated. For architects who desire something out of the ordinary, this leaflet has been prepared. Describes briefly our "Ancient" Tapered Mission Tiles, hand-made, with full corners and designed to be applied with irregular exposures.

Richardson Company, The, Lockland, Ohio.
Roofs of Distinction Booklet. 5 x 6¾ in. 22 pp. Illustrated in 4 colors and black and white.
Gives process of roofing manufacture. Has color charts showing four shingles of different colors blended in same roof. Lists and describes Richardson Products.
Roofing on the Farm Booklet. 5 x 6¾ in. 22 pp. Illustrated in 4 colors and black and white.
A solution to farm roofing problems.
Viskalt Roof Specifications Booklet. 7 x 12 in. 10 pp. Illustrated.
Specifications for applying Viskalt Membrane built on roofs.
A Specific Way to Outwit the Weather Booklet. 10 x 12 in. 4 pp. Illustrated.
Treatise on recoating old roofs.



Switchboard Assembly

Assembly in Switchboards means the accumulation of finished products and their mounting upon panels or framework to form a complete switchboard.

G-E Switchboard Assemblers are artisans, who not only know the products they handle but also know the functioning of these products. The result of such assembly is obvious. Every device mounted upon a switchboard is adjusted with respect to its successful operation after installation. The completed board must then be inspected and approved by competent engineers who are versed in the requirements of the purchaser, both for design and installation.

Only in this way can the Architect be assured of a product complying with his specifications and properly fitting into his structure.

This is the seventh installment of the story of building quality switchboards. Next month we shall tell you something about switchboard devices. We trust that this series merits a place in your file 31c2 and shall be glad to send you any numbers necessary to complete it.

General Electric Company
Schenectady, N. Y.

54C-88

GENERAL ELECTRIC

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—*Continued from page 96*

ROOFING—Continued

Ruberoid Co., The (formerly the Standard Paint Co.), 95 Madison Avenue, New York, N. Y.
Instructions for Laying Built-up Roofs. Booklet. 8½ x 11. in. Illustrated.
Rubberoid Strip-Shingle. Booklet. 3½ x 6¼ in. 16 pp. Illustrated in color.

United Alloy Steel Corporation, Canton, Ohio
Better Sheet Metal. 8½ x 11 in. 128 pages and cover. Illustrated. Shows the many uses of Toncan Metal with many pictures of buildings, names of architects, etc., also tables of weights and other useful specification data.

Weatherbest Stained Shingle Co., Inc., North Tonawanda, N. Y.
The Construction of Weatherbest Thatch Roofs. Booklet. 8 x 11 in. 16 pp. Illustrated. A well written, carefully prepared book giving in detail the proper construction for securing the Thatch Effect roof by the use of WEATHERBEST Stained Shingles. Contains full-page reproductions of WEATHERBEST homes and drawings showing detail of roof construction.
Various Pamphlets. Illustrated. Each pamphlet exemplifies some specific quality of WEATHERBEST Stained Shingles used for roofs and sidewalls.

RUGS, IMPORTED

Kent-Costikyan Trading Company, Inc., 484 Fifth Ave., New York, N. Y.
Rugs. Catalogue. 9½ x 6½. 56 pp. Illustrated. Illustrates and describes an unusual collection of Oriental and Occidental rugs with stock list.

SASH CHAIN

American Chain Company, Inc., Bridgeport, Conn.
American Sash Chain. Booklet. 3½ x 6 in. 8 pp. Illustrated. Describes and illustrates American Sash Chain and Sash Fixtures.

Smith & Egge Mfg. Co., The, Bridgeport, Conn.
Chain Catalog. 6 x 8½ in. 24 pp. Illustrated. Covers complete line of chains, hardware and specialties.

SASH CORD

Samson Cordage Works, Boston, Mass.
Catalog. 3½ x 6¼ in. 24 pp. Illustrated. Covers complete line of rope and cord.

SCREENS

Athey Company, 6015 West 65th St., Chicago, Ill.
The Athey Perennial Window Shade. An accordian plaited window shade, made from translucent Herring bone woven Coutil cloth, which raises from the bottom and lowers from the top. It eliminates awnings, affords ventilation, can be dry cleaned and will wear indefinitely.

The Higgin Manufacturing Co., Newport, Ky.
Your Home Screened the Higgin Way. Booklet. 8½ x 11½ in. 13 pp. Illustrated in colors. Complete description of Higgin Screens, designed to meet every need.

SEWAGE DISPOSAL

Kewanee Private Utilities, 442 Franklin St., Kewanee, Ill.
Specification Sheets, 7¾ x 10¼ in. 40 pp. Illustrated. Detailed drawings and specifications covering water supply and sewage disposal systems.

SHEATHING

Bishopric Manufacturing Co., 103 Este Ave., Cincinnati, Ohio.
For All Time and Clime. Booklet. 6 x 9 in. 48 pp. Illustrated. Describing the use of Bishopric stucco base and Bishopric plaster base.

STAINS—See Paints, Varnishes, Wood Finishes

STEEL COMPARTMENTS

Henry Weis Mfg. Co., Atchison, Kan.
Catalog No. 11, 1923 Edition. 8½ x 11 in. 32 pp. Illustrated. Shows Toilet, Shower and Dressing room compartment, and Hospital Cubical installations in all types of buildings; describes "WEISTEEL" compartments in detail; gives complete specifications and suggested specifications for architects' use; includes blueprints of suggested layouts, lists of Standard sizes and units.

STONE, BUILDING

Indiana Limestone Quarrymen's Association, Box 766, Bedford, Indiana.
Volume 3, Series A-3. Standard Specifications for Cut Indiana Limestone work. 8½ x 11 in. 56 pp. Containing specifications and supplementary data relating to the best methods of specifying and using this stone all building purposes.
Vol. 1. Series B. Indiana Limestone Library. 6 x 9 in. 36 pp. Illustrated. Giving general information regarding Indiana Limestone, its physical characteristics, etc.
Vol. 4. Series B. Booklet. New Edition. 8½ x 11 in. 64 pp. Illustrated. Indiana Limestone as used in Banks.
Volume 5. Series B. Indiana Limestone Library. Portfolio. 11¾ x 8¾ in. Illustrated. Describes and illustrates the use of stone for small houses with floor plans of each.

Tompkins-Kiel Marble Company, 505 Fifth Ave., New York, N. Y.
Reproductions in natural colors of imported and domestic marbles and stone for interior and exterior uses.
Bulletins. 9¾ x 12¾ in. Illustrating buildings of various types in which Tompkins-Kiel Marble Company's imported and domestic marbles and stone have been used.

STORE FRONTS

Brasco Manufacturing Co., 5025-35 South Wabash Avenue, Chicago, Ill.
Portfolio. 8½ x 11 in. 32 pp. Illustrated. Selected examples of Brasco Copper Store Fronts suitable for different businesses and varying conditions of locations.
Catalogue 28. 8½ x 10¾ in. 20 pp. Illustrated with plates. Details of Brasco Copper Store front construction. Also showcases, ventilator sashes.
Detail Sheets. Set of five sheets giving details and suggestions for store front designing enclosed in envelope convenient for filing.

STORE FRONTS—Continued

Kawneer Co., The, Niles, Mich.
A Collection of Successful Designs. Catalog. 9¼ x 6½ in. 64 pp. Illustrated. Showing by use of drawings and photographs many types of Kawneer Solid Copper Store Fronts.

Zouri Drawn Metals Company, Chicago Heights, Ill.
Zouri Safety Key-Set Store Front Construction. Catalogue. 8½ x 10½ in. 60 pp. Illustrated. Complete information with detailed sheets and installation instructions convenient for architects' files.
International Store Front Construction. Catalogue. 8½ x 10 in. 70 pp. Illustrated. Complete information with detailed sheets and installation instructions convenient for architects' files.

STUCCO

Bishopric Manufacturing Co., 103 Este Ave., Cincinnati, Ohio.
For All Time and Clime. Booklet. 6 x 9 in. 48 pp. Illustrated. Describing the use of Bishopric stucco base and Bishopric plaster base.

Morene Products Company, Inc., 243 West 28th Street, New York, N. Y.
Pamphlet 8-1/24 x 3¾ in. Illustrated. A brief treatise on the use of Morene for residences, showrooms, restaurants, etc.

STUCCO BASES

Bishopric Manufacturing Co., 103 Este Ave., Cincinnati, Ohio.
Specifications and Working Details. Booklet. 7¾ x 10½ in. Illustrated. Contains plainly written instructions for the use of stucco, stucco base, plaster base and insulation base.

STUCCO, MAGNESITE

American Magnestone Corporation, Springfield, Ill.
Catalog. 13 pp. Describes the quality, beauty and strength of Magnestone.

Muller & Co., Franklyn R., Waukegan, Ill.
Everlastic Magnesite Stucco, Booklet. 8½ x 11 in.

TERRA COTTA

National Terra Cotta Society, 19 West 44th St., New York, N. Y.
Standard Specification for the Manufacture. 8½ x 11 in. 12 pages. Furnishing and Setting of Terra Cotta, consisting of complete detail Specification, Glossary of Terms Relating to Terra Cotta and Short Form Specification for incorporating in Architect's Specifications.
Color in Architecture. Illustrated brochure 8½ in. containing a treatise upon the basis principles of color in architectural design, illustrating early European and modern American examples.
Present Day Schools, 8½ x 11 in. 32 pages. Illustrating 42 examples of school architecture with article upon school building design by James O. Betelle, A. I. A.
Better Banks. 8½ x 11 in. 32 pages. Illustrating many banking buildings in terra cotta with an article on its use in bank design by Alfred C. Bossom, Architect.

Northwestern Terra Cotta Co., The, 2525 Clybourn Ave., Chicago, Ill.
Booklet. 8¼ x 11 in. 77 pp. Illustrated. Showing in a concise way the usefulness of terra cotta.

TERRAZZO

Galassi Company, 153 East 38th Street, New York, N. Y.
Suggesting a Standard Specification for Terrazzo Work Booklet. Specifications for the use of terrazzo.

THERMOSTATS—See Heating Equipment

TILE, FLOOR AND WALL

Associated Tile Manufacturers, The, Beaver Falls, Pa.
Basic Information. Booklet. 7½ x 10⅝ in. 24 pp. Illustrated. Ask for Booklet K-200.
A publication issued for architects, engineers and educators to acquaint them with methods of grading, derivation of sizes and shapes, variety of colors, kind of finishes, nomenclature and ingredients and processes insofar as they lead to a better understanding of the product and its uses.
Basic Specifications and Related Documents. Booklet. 7½ x 10⅝ in. 38 pp. Ask for Booklet K-300.
The Basic Specification proper gives in detail the procedure to be followed with respect to any kind of tile installation in connection with practically every type of construction. The Related Documents or work sheets are designed to call attention to optional application methods and materials.
Swimming Pools. Booklet. 8½ x 11 in. 32 pp. Illustrated. Issued for the use of architects and engineers as a handbook on swimming pools and their construction.
Bringing the Crowds to Your Market. Booklet. 8½ x 11 in. 16 pp. Illustrated in color. Shows use of tile for the modern sanitary market.

TILE, HOLLOW

National Fire Proofing Co., 250 Federal St., Pittsburgh, Pa.
Standard Wall Construction Bulletin 174. 8½ x 11 in. 32 pp. Illustrated. A treatise on the subject of hollow tile wall construction.
Natco on the Farm. 8½ x 11 in. 38 pp. Illustrated. A treatise on the subject of fire safe and permanent farm building construction.
Natco Homes and Garages. Booklet. 7 x 10 in. 32 pp. Illustrated. Showing the use of Natco Hollow Tile for private residences.

VACUUM CLEANING APPARATUS

The Spencer Turbine Company, Hartford, Conn.
Vacuum Cleaning Apparatus for all purposes. Booklet. 32 pp. Illustrated. Complete information on product, showing prominent buildings equipped with this system.

VALVES

Crane Co., 836 S. Michigan Ave., Chicago, Ill.
No. 50 Steam Pocket Catalog. 4 x 6½ in. 775 pp. Illustrated. Describes the complete line of the Crane Co.

P-A-X

TRADE MARK

PRIVATE AUTOMATIC EXCHANGE

Serves 24 Hours a Day without an Operator

Wherever the P-A-X is installed, business is conducted with increased dispatch and precision. There is no operator to cause delays and errors in interior communication, or to "listen in" on conversation.

For 24 hours a day, every day of the week, the P-A-X is available to meet every intercommunication need instantly, accurately and automatically.

The time and money saved, errors reduced and routines quickened make the P-A-X a real necessity in organizations of every type and size. All over the world, telephone engineers approve its design and recommend its use. Specifications will be found in Sweet's Catalogue.

Automatic Electric Company

ENGINEERS, DESIGNERS & MANUFACTURERS OF THE AUTOMATIC TELEPHONE IN USE THE WORLD OVER

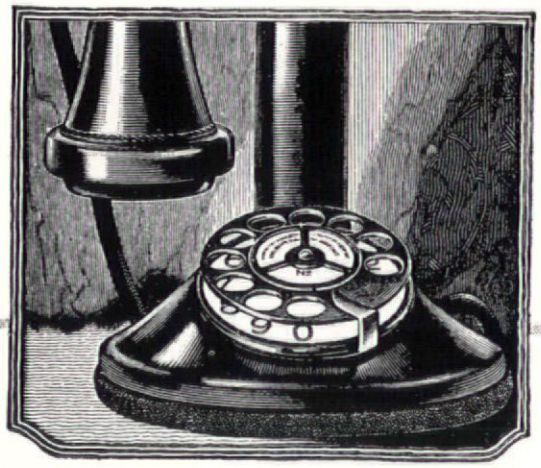
HOME OFFICE AND FACTORY: CHICAGO, U. S. A.

Branch Offices
NEW YORK, 21 E. 40th Street
CLEVELAND, Cuyahoga Bldg.
Representatives in All Principal Cities

In Canada—Address
Northern Electric Co., Ltd., 121 Shearer Street, Montreal, P.Q.

Abroad—Address
International Automatic Telephone Co., Ltd., Norfolk House, Norfolk Street, Strand, London, W. C. 2, England

In Australia—Address
Automatic Telephones, Ltd., Mendes Chambers, Castlereagh St., Sydney, Australia



The P-A-X is similar to the Automatic Telephone equipment being so widely adopted for city service. It augments and completes but neither supplants nor connects with local or long distance telephone service.

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS —*Continued from page 98*

VALVES—Continued

Gorton & Lidgerwood Co., 96 Liberty St., New York, N. Y.
Gorton Quarter-Turn Packing-Lock Valves. Booklet. 4¼ x 7¼ in. 32 pp. Illustrated. Describing a new type of valve for all systems of steam, hot water and vacuum heating.

Illinois Engineering Co., Racine Ave., at 21st St., Chicago, Ill.
Catalogue. 8½ x 11 in. 88 pp. Illustrated.

Hoffman Specialty Company, Inc., 512 Fifth Ave., New York, N. Y.
Hoffman Valves and Controlled Heat Equipment Catalog. 3⅜ x 6 in. 12 pp.
Shows uses, capacity, connection, sizes and list prices of each product.

Hoffman Data Book 3¾ x 7 in. 170 pp.
Contains information for Architects, Heating Engineers and Contractors in 5 sections as follows:
Section 1—Short Methods of Figuring Radiation.
" 2—Heat Unit Method of Figuring Radiation.
" 3—Pipe Sizing Data.
" 4—Miscellaneous Engineering Data.
" 5—Hoffman Products.

Jenkins Bros., 80 White Street, New York.
The Valve Behind a Good Heating System. Booklet 4½ x 7¼ in. 16 pp. Color plates. Description of Jenkins Radiator Valves for steam and hot water, and brass valves used as boiler connections.

Jenkins Valves for Plumbing Service. Booklet. 4½ x 7¼ in. 16 pp. Illustrated. Description of Jenkins Brass Globe, Angle Check and Gate Valves commonly used in home plumbing, and Iron Body Valves used for larger plumbing installations.

VARNISH—See Paints, Stains, Varnishes

VENETIAN BLINDS

Burlington Venetian Blind Co., Burlington, Vt.
Venetian Blinds. Booklet. 4½ x 7½ in. 32 pp. Illustrated. Describes the "Burlington" Venetian blinds, method of operation, advantages of installation to obtain perfect control of light in the room.

VENTILATION

Globe Ventilator Company, 205 River Street, Troy, N. Y.
Globe Ventilators Catalog. 6 x 9 in. 32 pp. Illustrated profusely. Catalog gives complete data on "Globe" ventilators as to sizes, dimensions, gauges of material and table of capacities. It illustrates many different types of buildings on which "Globe" ventilators are in successful service, showing their adaptability to meet varying requirements.

Van Zile Ventilating Corporation, 280 Madison Avenue, New York, N. Y.
The Ventadoor Booklet 6½ x 3½ in. 16 pages. Illustrated. Describes and illustrates the use of the Ventadoor for Hotels, Clubs, Offices, etc.

WALL BOARDS

Carey Co., The Philip, Cincinnati, Ohio.
Carey Board for Better Building. Catalog. 6 x 9 in. 32 pp. Illustrated.

WALL PAPER

W. H. S. Lloyd Company, 105-7 West 40th St. New York City.
Architects Book. 301 pp. 8 x 5¾ in. Illustrated. Architects find this book of great service in selecting grades of wall paper. While it shows but a very limited selection of Lloyd Papers, it gives a fair idea of their quality, patterns and colors.

WASTE RECEPTACLES

Cortes Ward Company, Inc., 245 West 55th St., New York, N. Y.
Waste Receptacles. Catalogue contains complete illustrations and specifications of the different uses of Solar Self Closing Receptacles.

WATERPROOFING

The General Fireproofing Company, Youngstown, Ohio.
Waterproofing Series A 507-9. Booklet. 8½ x 11 in. 42 pp. Illustrated. Thoroughly covers subject of waterproofing concrete, wood and steel preservatives, dustproofing and hardening concrete floors, and accelerating the setting of concrete.

Ruberoid Co., The, 95 Madison Ave., New York.
Impervite. Circular. 8½ x 11 in. 4 pp. Illustrated. An integral water-proofing compound for concrete, stucco, cement, motar, etc.

Sandusky Cement Co., Dept. F., Cleveland, Ohio.
Medusa Waterproofing. Booklet. 6¾ x 9 in. 38 pp. Illustrated.

Sonneborn Sons, Inc., L., 116 Fifth Ave., New York.
Pamphlet. 3¾ x 8¾ in. 8 pp. Explanation of waterproofing principles. Specifications for waterproofing walls, floors, swimming pools and treatment of concrete, stucco and mortar.

WATER PURIFIERS

Wallace & Tiernan Company, Newark, N. J.
Protecting N. Y. Water Supply. Booklet. 10 x 7 in. 24 pp. Illustrated. Describes the chlorinating equipment used for sterilizing N. Y. City water supply; also equipment suitable for sterilizing water supplies of municipalities, industrial plants, private residences, etc.

WATER SOFTENERS

Permutit Company, The, 440 Fourth Ave., New York, N. Y.
Permutit-Water softened to No (Zero) Hardness. Booklet. 8½ x 11 in. 32 pp. Describing the original Zeolite process of softening water to zero hardness. An essential for homes, hotels, apartment houses, swimming pools, laundries, textile mills, paper mills, ice plants, etc., in hard water districts.

WEATHER STRIPS

Monarch Metal Products Co., 5000 Penrose St., St. Louis, Mo.
Monarch Metal Weatherstrips, A. I. A. Class 19 e 14. Manual. 7½ x 10¾ in. 48 pp. Illus. Designed for architects and specification writers, showing details of windows, doors and other openings and the proper manner of installing Monarch strips. It also shows various strips made by this company. Fourteen pages are devoted to window leakage and radiation calculations.

The Higgin Manufacturing Co., Newport, Ky.
Higgin All-Metal Weather Strips. Booklet. 6 x 9 in. 12 pp. Illustrated in colors. Describes various types of Higgin Weather Strips for sealing windows and doors against cold and dust.

WINDOW HARDWARE, CASEMENT

Hoffman Mfg. Co., Andrew, 900 Steger Bldg., Chicago, Ill.
Hoffman Casement Fixtures. Architects' Portfolio. 8½ x 11 in. 30 pp. Loose-leaf. Scale details for mill-work, installation, etc., in new and old work.

International Casement Company, Jamestown, N. Y.
International Casements. Catalog. 8½ x 11 in. 224 pp. Illustrated. Valuable book, containing photographs and measured drawings of all types of buildings, showing casement windows.

Monarch Metal Products Co., 5000 Penrose St., St. Louis, Mo.
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Richards-Wilcox Mfg. Co., Aurora, Ill.
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Crittall Casement Window Co., 10951 Hearn Ave., Detroit, Mich.
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Hope & Sons, Henry, 103 Park Avenue, New York.
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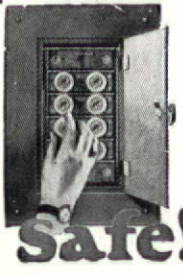
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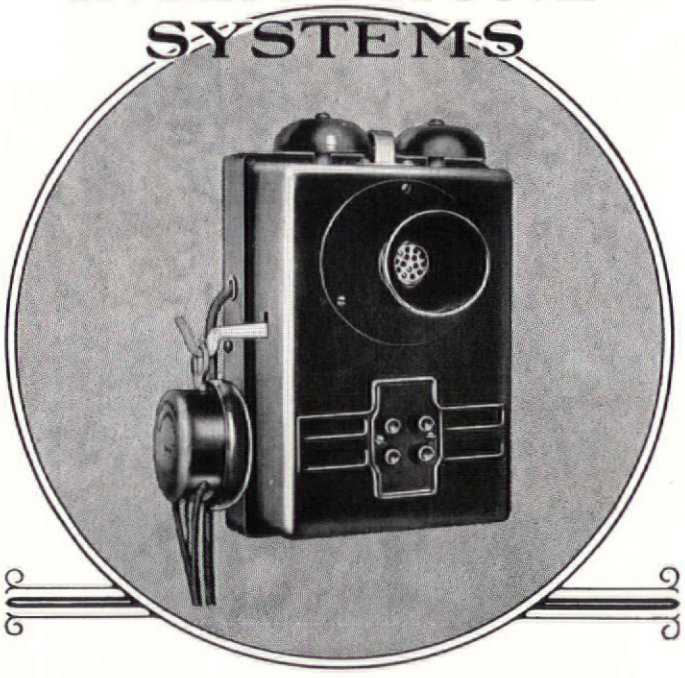
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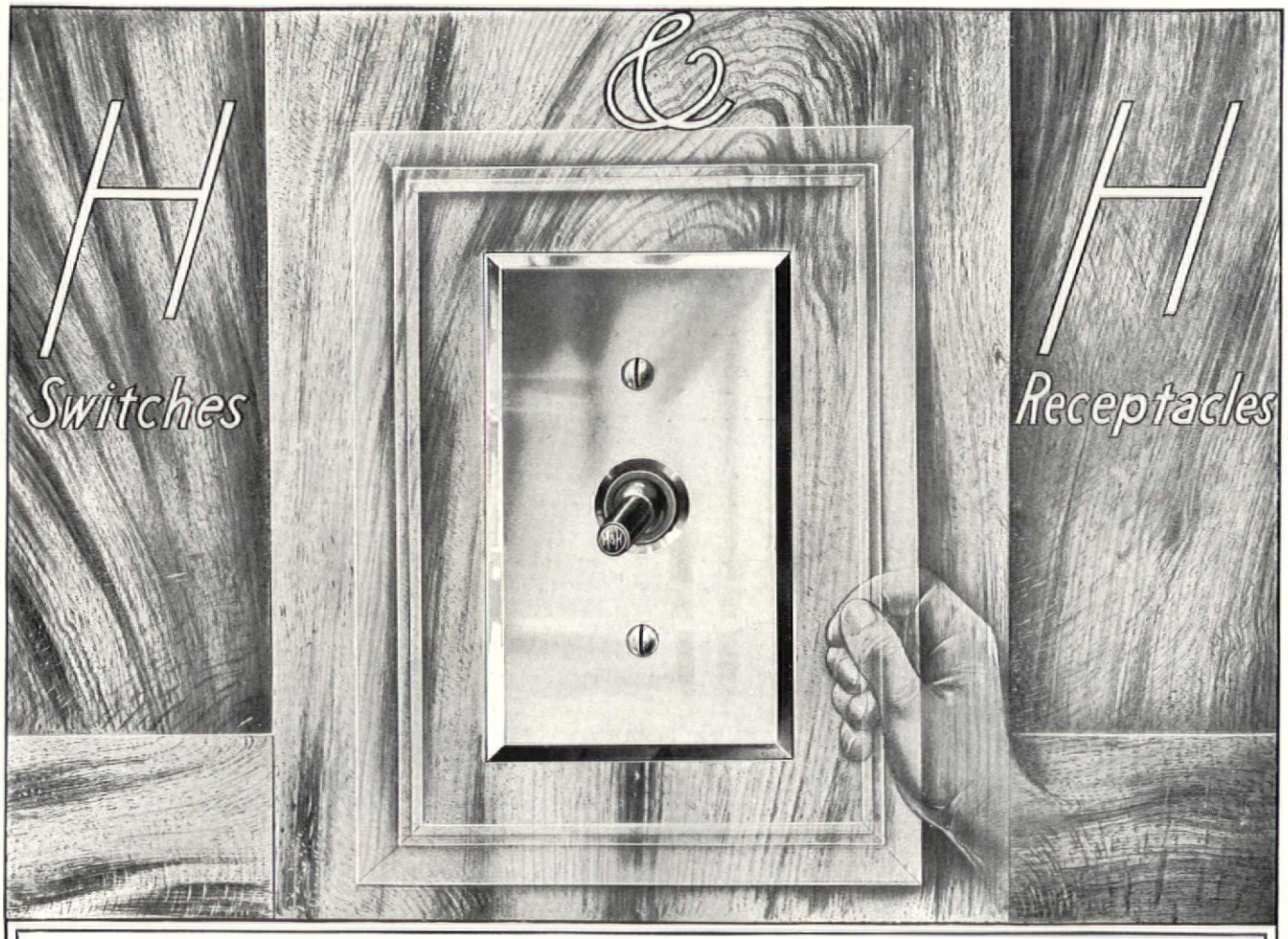
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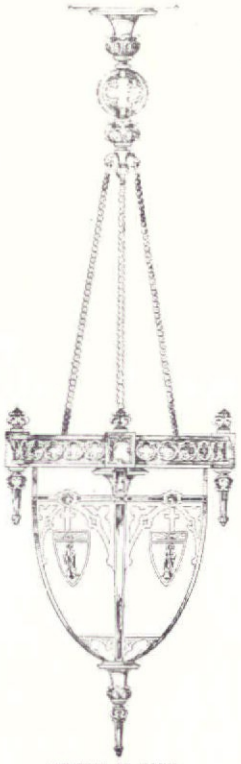
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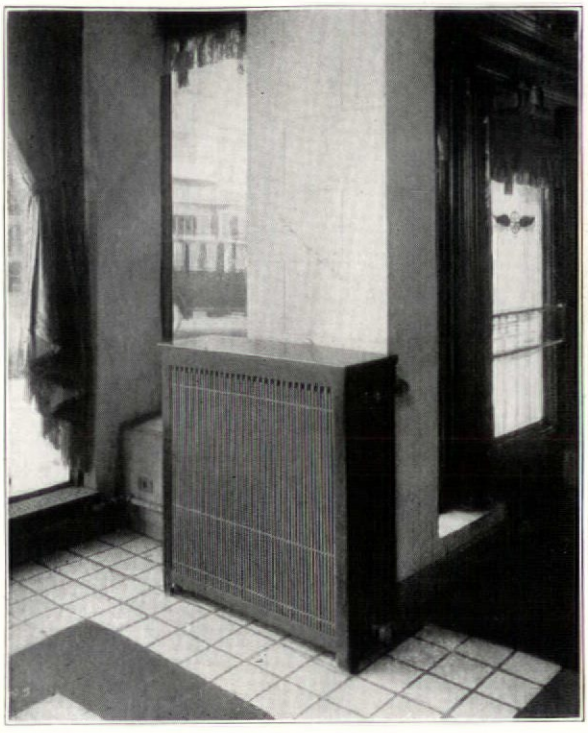
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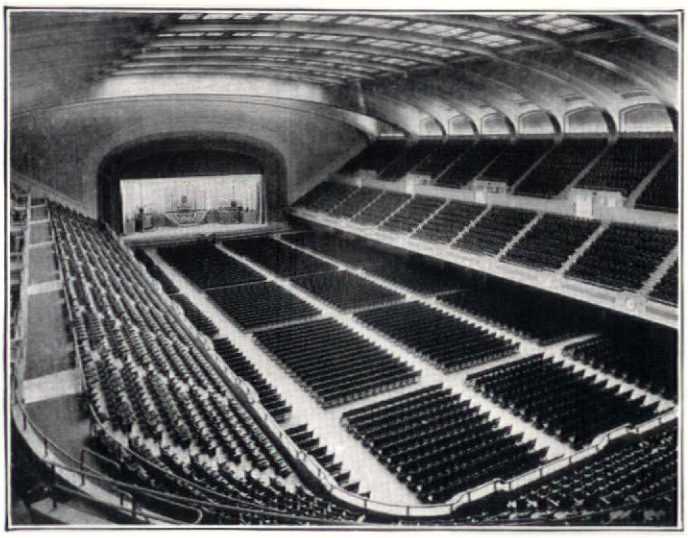
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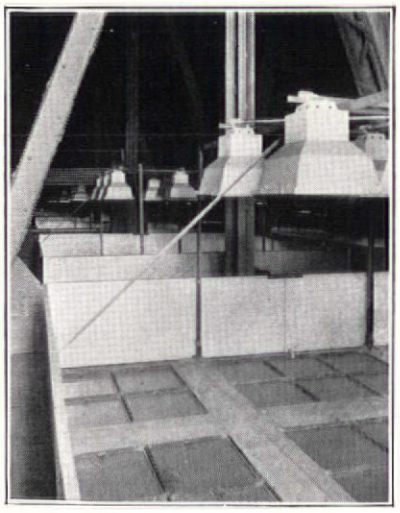
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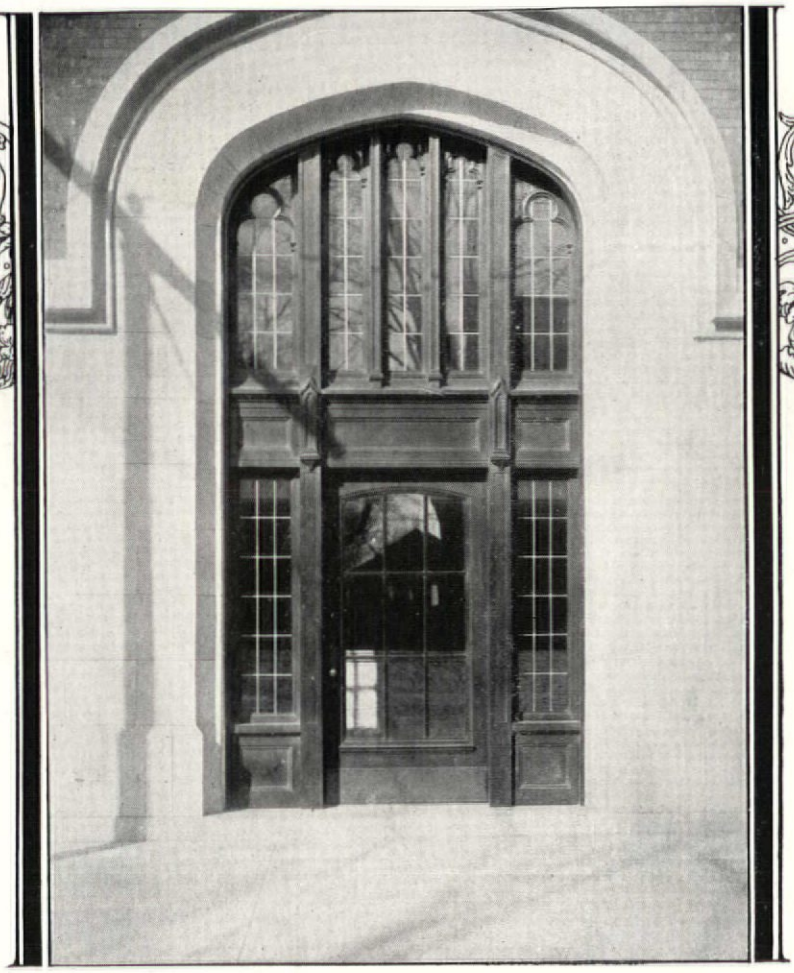
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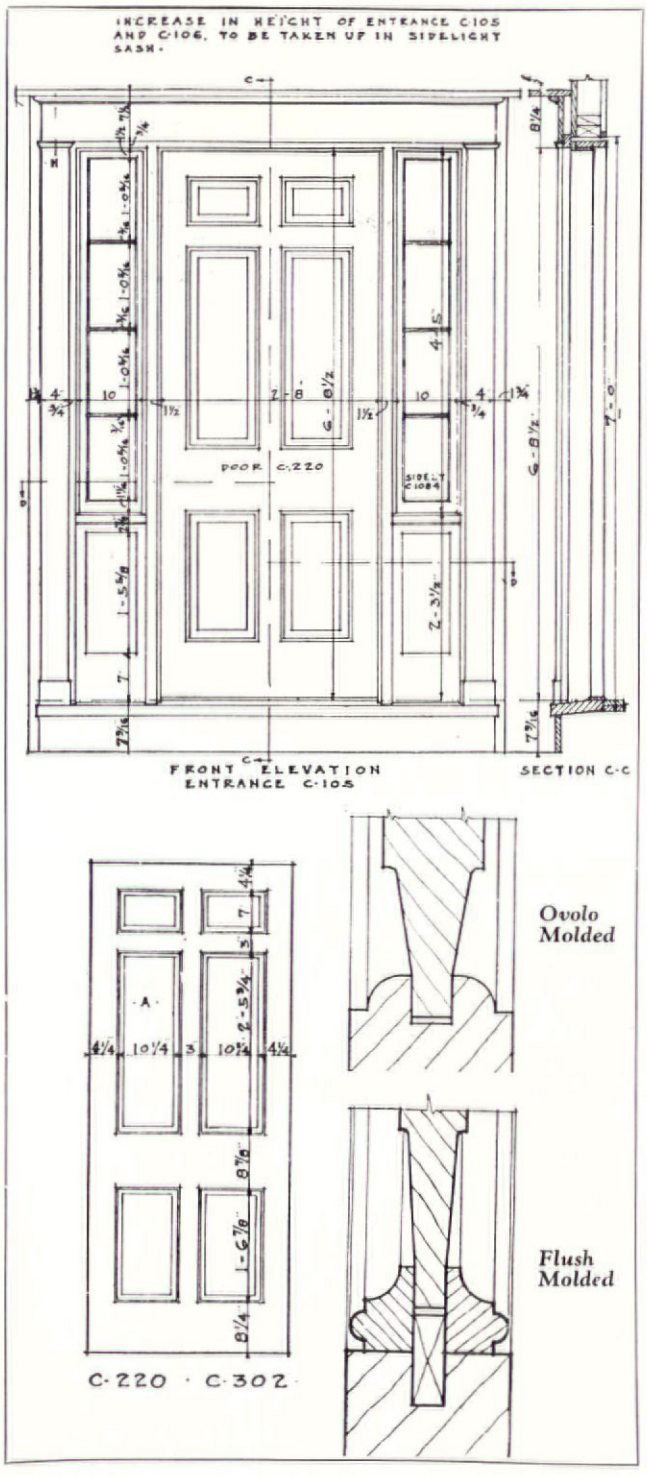
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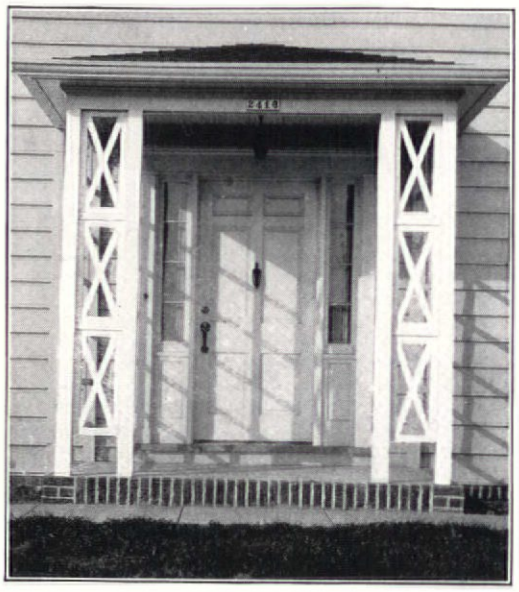
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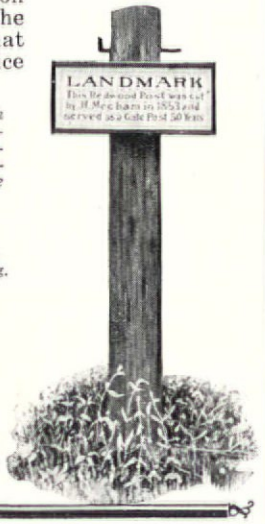
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8. Our glass is perfectly annealed and therefore does not break as easily as poorly annealed glass.
9. Our glass is washed and thoroughly cleaned in an acid bath, which prevents discoloration and permits ready detection of defects.
10. Our glass cuts perfectly on both sides.
11. Our glass is graded to the highest standard of quality.
12. Our grading is the recognized standard for the United States, and is higher than the foreign standards.
13. Our glass does not break in shipment, on account of the uniformity of flatness, well made boxes, great care in packing, and skilful loading.
14. Our entire process is conducted on scientific principles.

Sold by reliable jobbers and dealers in every community.

Send for Your Copy of New Window Glass Specifications—Now Ready

AMERICAN WINDOW GLASS CO.

The BEST Glass — *World's Largest Producer of Window Glass* — The BEST Glass

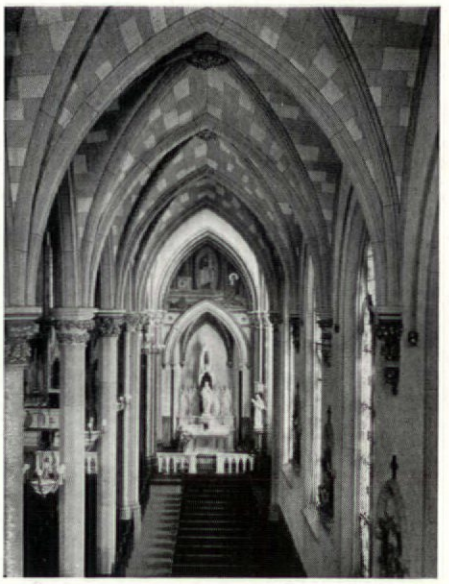
GENERAL OFFICES: PITTSBURGH, PA. BRANCHES IN PRINCIPAL CITIES

Use PLATE Glass ©

Makes all the difference in the world

Genuine PLATE GLASS
MADE IN U.S.A.

Nothing Else is Like it ©



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F. Burrill Hoffman & Murray Hoffman, Jr., *Archts.*
Morene Applied Over Old Painted Defective Walls and Ceilings

MORENE is recommended as a practical medium wherever artistic and permanent color effect and textures are desired. It is a distinctive, efficient, sanitary and washable wall finish.

MORENE PRODUCTS COMPANY, INC.
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HITCHINGS GREENHOUSES



When it comes to Greenhouses
Come to

NEW YORK
101 Park Avenue

Hitchings and Company

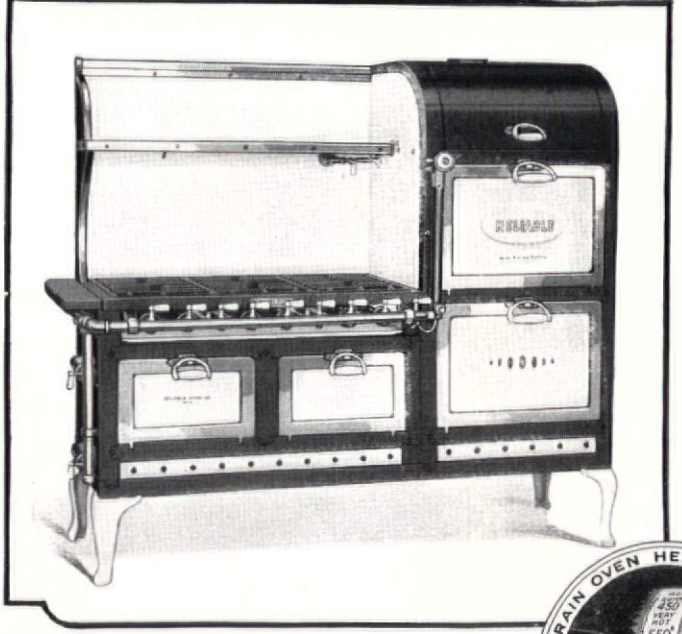
BOSTON-9
294 Washington Street

General Offices and Factory: Elizabeth, N. J

PHILADELPHIA
Empire Building
13th and Walnut Streets

The Kitchen Isn't Modern if It Lacks Lorain





Upper view shows apartment building at 233 East Walton Place, Chicago, Ill. 233 E. Walton Place Building Corporation, Owners; C. Howard Crane and Kenneth Franzheim, Architects, Chicago; McLennan Construction Co., Builders, Chicago. Kitchens throughout are equipped with Reliable Angliron Gas Ranges with Lorain Oven Heat Regulators. The model installed is shown above.

DUE to the extensive national advertising and to the advice of neighbors and friends, American housewives generally are thoroughly convinced of the big advantages of gas ranges equipped with the famous Lorain Oven Heat Regulator.

In the face of this universal confidence, no builder can justly claim to a prospective tenant that his kitchen is modern, *unless it has a Lorain-equipped Gas Range.* This fact is becoming more apparent all the time.

Satisfied tenants are the greatest asset the builder of places to rent or sell can have, and no equipment placed in his houses or apartments will go further to bring about "tenant-satisfaction" than the installation of a Lorain-equipped Gas Range.

The advantages of Lorain over and above non-Lorain equipment are most pronounced in: (1), its efficiency of operation; (2), uniformity of baking results; (3), relieving the housewife for other duties while the cooking automatically takes care of itself; (4), the cooking of a Whole Meal in the oven unwatched; (5), Oven Canning with perfect results.

Over one thousand of the finest schools and universities of America use Lorain-equipped Gas Ranges in their domestic science departments for cookery instruction purposes. These wonderful stoves are used in thousands upon thousands of homes, apartments, churches, hospitals, fraternal organization buildings and other types of structures.

For specific data as to sizes, styles, etc., see 18th Edition Sweet's Architectural Catalog, pages 2315-24 inclusive. Catalogs, prices and other information on request.



One easy turn of the Lorain Red Wheel gives the housewife a choice of 44 measured and controlled oven heats for any kind of oven cooking or baking.

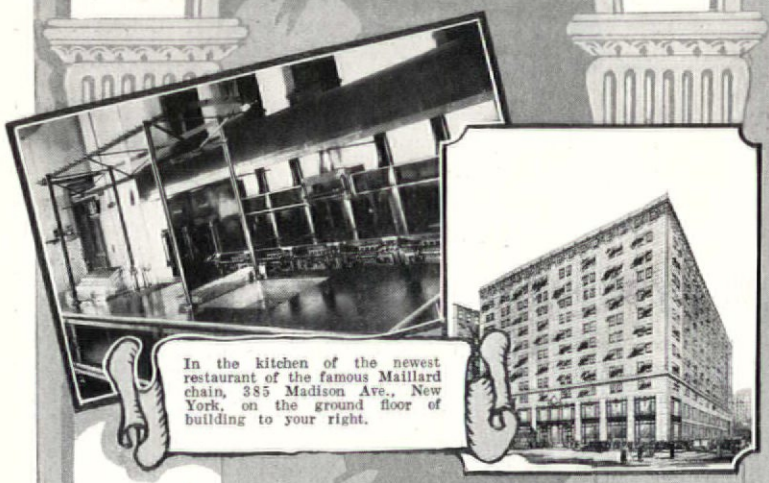
These famous gas stoves are equipped with the Lorain Oven Heat Regulator: Reliable, Clark Jewel, Dangler, Direct Action, New Process, Quick Meal.



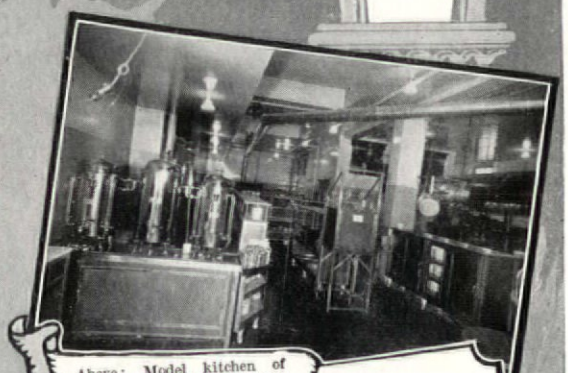
AMERICAN STOVE COMPANY, 444 Chouteau Ave., St. Louis, Mo.
Largest Makers of Gas Ranges in the World

LORAIN OVEN HEAT REGULATOR

If you plan for invisible quality to



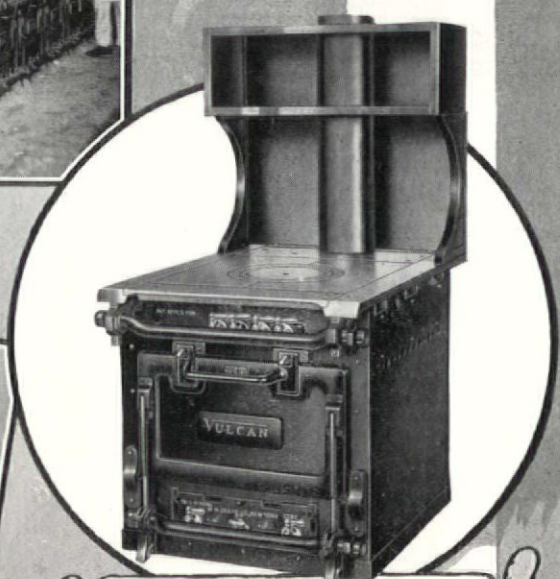
In the kitchen of the newest restaurant of the famous Maillard chain, 385 Madison Ave., New York, on the ground floor of building to your right.



Above: Model kitchen of big, new Hotel Pearson Chicago where Vulcans are standard, as they are in the Sevilla-Biltmore, Havana, Cuba (Right).



Left: City home of noted N. Y. Athletic Club. All cooking done on Vulcans, which are also in Travers Island home of N.Y.A.C. (kitchen at right).



VULCAN ECONOMY HOT TOP
No. 1751

Hero of many cost-cutting installations. Nine times out of ten No. 1751's fuel-economy will pay for itself and cost of installing.



Left: Kitchen of Multnomah County Hospital, Portland, Ore. Right: The beautiful Fifth Ave. Hospital, New York. Both standardize on Vulcan ranges.

Wm. M. Crane Company ~ Gas Range

reinforce the beauty of an edifice~

then we believe you will admire the Vulcan standard of character, when you know it.

An architect takes great pains to perfect his specifications for work that is hidden — unthought of save by a very few. The ancient tradition of architectural art demands it.

In our field there was no tradition 39 years ago, when our businesss was started. We built up our own code. And its first principle is the same as that which prevails among architects: "Honesty within, as well as without."

A gas range, like a building, cannot do its work unless it is founded on excellence in materials and workmanship both hidden and seen.

A good gas range will stand up under hard usage; and be economical of fuel. It must be a splendid cooking tool. In a score of different ways it helps chefs and cooks to do their best with a minimum of effort and time.

Perhaps it is this excellence of hidden quality, in addition to their obvious abilities, which has commended Vulcan ranges so successfully to the architects, chefs and executives of numerous concerns and institutions.

From the fine de luxe restaurants and hotels, from the kitchens of the cosmopolitan New York Athletic Club and the splendid Fifth Avenue Hospital to public eating places, such as Woolworth and Colonnade cafeterias in many places, Vulcan users represent every conceivable cooking requirement.

If you, like other architects of your own kind, decide to "standardize" on Vulcans they will help you to lay out kitchens which please exacting clients.

Will you permit us to send you "No. 47," a beautifully complete, illustrated catalog, just off the press. It contains technical data useful to architects.

VULCAN PRODUCTS—SAFE TO RECOMMEND

The William M. Crane Company makes a complete line of gas-burning equipment. Here is a list of important Vulcan products:

Domestic

Vulcan Smoothtop Ranges
Vulcan Open-Top Ranges
Vulcan Water Heaters

Industrial and Miscellaneous

(For Hotels Restaurants, Stores, Shops, etc.)

Vulcan Economy Hot-Top Ranges
Vulcan Broilers and Roasters
Vulcan Roasting Ovens
Vulcan Baking Ovens
Vulcan Griddles and Toasters
Vulcan Oyster Friers
Vulcan Waffle Stoves
Vulcan School Stoves
Vulcan Industrial Burners

The Vulcan Line is ALL Quality

The booklet "Cutting Cooking Costs" is very much to the point. Sent free on request.

A "WHO'S WHO" OF INSTALLATIONS PICTURED ON THE OPPOSITE PAGE

The installations shown, and those in buildings pictured on opposite page were made by these firms:

MAILLARD'S: L. Barth & Son, New York. HOTEL PEARSON: Albert Pick & Company. SEVILLA-BILTMORE: W. J. Buzzini, Inc. (Architects, Schultze & Weaver). FIFTH AVE. HOSPITAL: Duparquet, Huot & Moneuse Co., New York. MULTNOMAH COUNTY HOSPITAL: Northwestern Gas & Electric Equipment Co. (Architects Sutton & Whitney, Portland).

Suggestions, information and specifications gladly and promptly supplied

If you desire, now or at any future time, any information connected with the selection of gas-burning equipment for institutions, restaurants, hotels, public buildings, apartment houses or residences, we will be glad to supply it at once, or get it for you.

WHEN PLANNING KITCHENS FOR HOMES

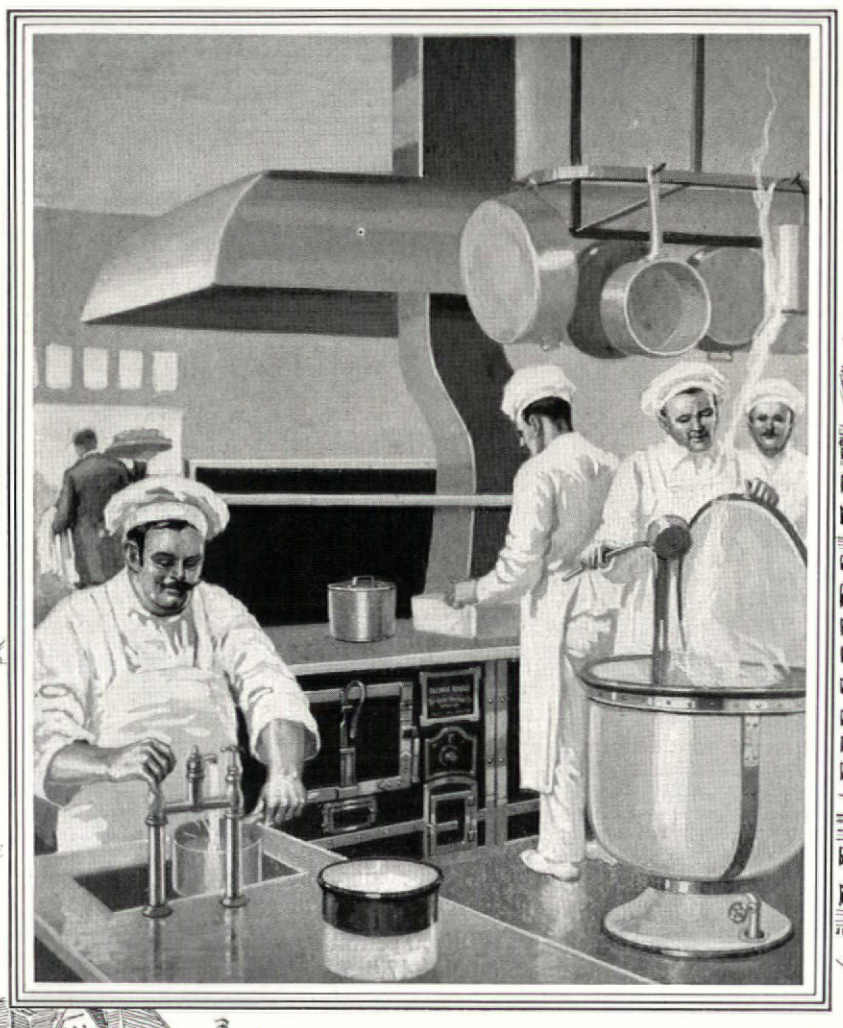
We have a handsome booklet, written by an architectural authority, fresh from the presses, entitled "Saving Kitchen Space In Apartments and Residences." A copy shall be sent free upon request.

Vulcan Smoothtop Gas Ranges

in domestic kitchens help to sell and to rent apartments and residences. Facts and Figures in Service Sheets of Builders' Selling-Help Division. Sent on request.

Headquarters ~ 18-20 E. 41st. St. New York

Why You Should Install



Van Equipment—

For preparation and serving of food

because of "That Enduring Quality"

VAN engineers and food service experts are ready to co-operate with you in the planning, designing and installing of your food preparation and serving equipment. Nothing too large or too small for Van to handle.

The John Van Range Co.

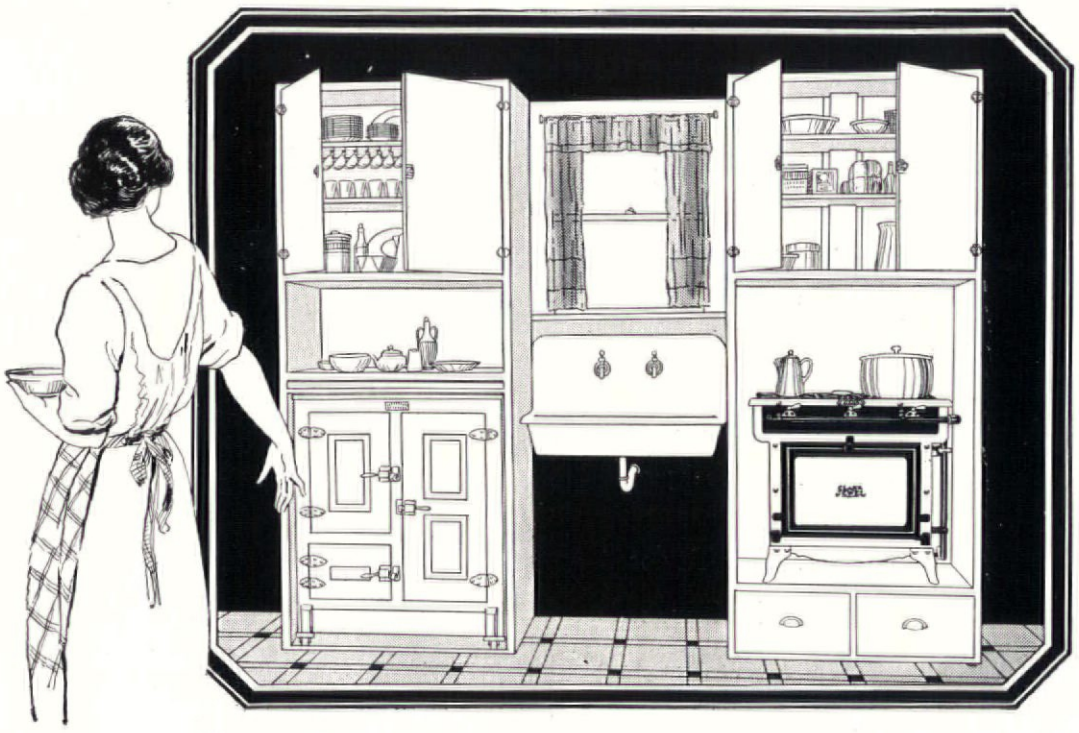
EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD

Cincinnati

Our catalog of 364 pages showing all equipment necessary for the preparation and serving of food is indispensable to buyers of such commodities for both installation and for general upkeep. Write for your copy to-day.

DETROIT KANSAS CITY CHICAGO NEW ORLEANS CLEVELAND

Architects Can Lower Building Costs and Increase Rental Values by Specifying:



Betzco Kitchunits

In order to meet present building requirements, the architect finds it necessary to take advantage of every possible method by which building costs may be reduced. When any way offers which increases rental values at the same time reducing the building costs, such as is the case when Betzco Steel Kitchunits are specified in the plan, it is of particular interest.

Kitchunits are made in definite units, which can be combined in convenient arrangement or installed singly. The unit idea not only adds materially to economy in manufacture, but also greatly simplifies the work of the architect and the cost of installation.

Kitchunits are made throughout of heavy gauge furniture steel, welded into a single, solid piece rigid and strong through long years of service and without cracks and crevices for vermin and dirt. The units are finished in washable enamel oven baked after each coat, giving a durable finish that is easily kept clean and spotless.

The satisfaction of the user is the ultimate test of every device. Thousands of owners have found that Kitchunits satisfy and please their tenants and make their apartments easier to lease. Such endorsement combined with the moderate cost and superior construction make Kitchunits the logical choice of discriminating architects, builders and owners.

The fact that Betzco Kitchunits are made in four different style units, each identical in over-all dimensions, makes them readily interchangeable and permits the combination of any number of units, according to available space and requirements.

FRANK S. BETZ COMPANY

CHICAGO
30 E. Randolph St.

HAMMOND, IND.

NEW YORK
6-8 W. 48th St.



THE BETZCO HOSPITAL BOOK
yours for the asking

FRANK S. BETZ COMPANY, Hammond, Ind.

Gentlemen:

Without obligating me in any way, I desire that you send me complete literature on the Betzco Steel Kitchunit, and also the Betzco Hospital Book which illustrates and describes your complete line of steel equipment for hospitals and institutions. (A.F.)

NAME.....

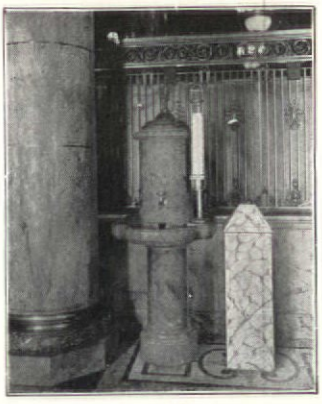
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CITY..... STATE.....

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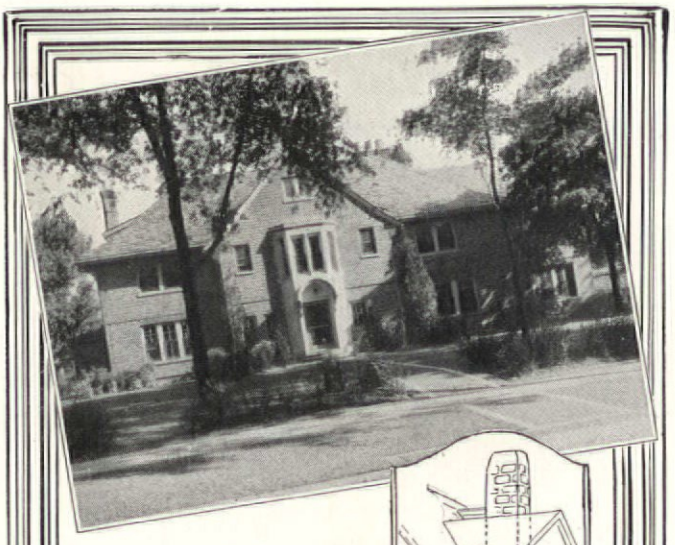
and many others
for the collection of

Used Paper Cups
Used Towels
Waste of all Kinds

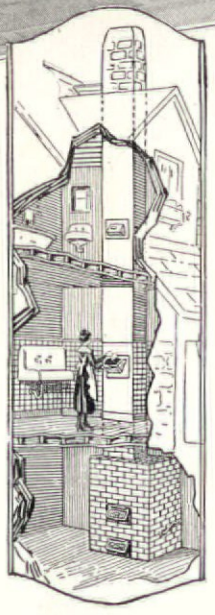
SANITARY ATTRACTIVE FIREPROOF
ALWAYS CLOSED

Write for literature.

CORTES WARD CO., Inc.
245 West 55th Street New York



Kernerator-equipped residence of Mr. David A. Brown, at 60 East Boston Boulevard, Detroit. Marcus R. Burrowes, Detroit, Architect.



Sanitation Urges
Convenience Demands
Experience Endorses
—the KERNERATOR!

THERE is nothing of the element of "pioneering" in specifying the Kernerator. For this time-tried means of garbage and waste disposal is becoming more and more "standard practice" with the nation's leading architects.

Costs Nothing to Operate

After the very moderate first cost, there is no upkeep expense whatever—for the waste itself is all the fuel required. The garbage, sweepings, tin cans, broken glass—in fact litter of all sorts—dropped through the hopper doors, falls to a brick combustion chamber, built at the base of the chimney in the basement when the building is being erected. There, an occasional lighting burns everything combustible, while non-combustibles, flame-sterilized, are removed with the ashes.

Pages 2340-41, Sweet's (1923) contain full details. For additional information, or references as to nearby installations, write—

KERNER INCINERATOR COMPANY
1015 CHESTNUT STREET MILWAUKEE, WIS.

KERNERATOR
Built-in-the-Chimney
REG. U. S. PATENT OFFICE

Drop all waste here



—then FORGET it!



In the Shadow of Dread Corrosion

The insidious blight, Corrosion, the red destroyer, Rust—they are at work all about you. In the water you drink, in the chemicals you use, and in the air you breathe. They shorten the life of most metals. They render others unfit for use. No wonder there is a demand—a vital need—for Monel Metal.

Monel Metal has been used for many varied types of equipment and construction because

—it will not rust,

—it is more generally resistant to corrosion than any other commercial metal,

—it does not contaminate food,

—its strength is not materially lessened by high temperatures,

—hot gases do not destructively oxidize its surfaces,

—its great strength enables it to withstand the wear of constant use.

Even when exposed to the spattering grease and dimming smoke of kitchens, Monel Metal is easy to keep spotless. Even when exposed to the deteriorating influence of most acids and hot gases, Monel Metal equipment stands up and continues to function. Even in hospital operating rooms, it furnishes an aseptically clean surface with a minimum of attention.

And in addition to being inherently clean and corrosion resisting, Monel Metal has the strength of steel. Therefore—always remember this! Equipment or construction fabricated of Monel Metal is built to last—it WILL endure.

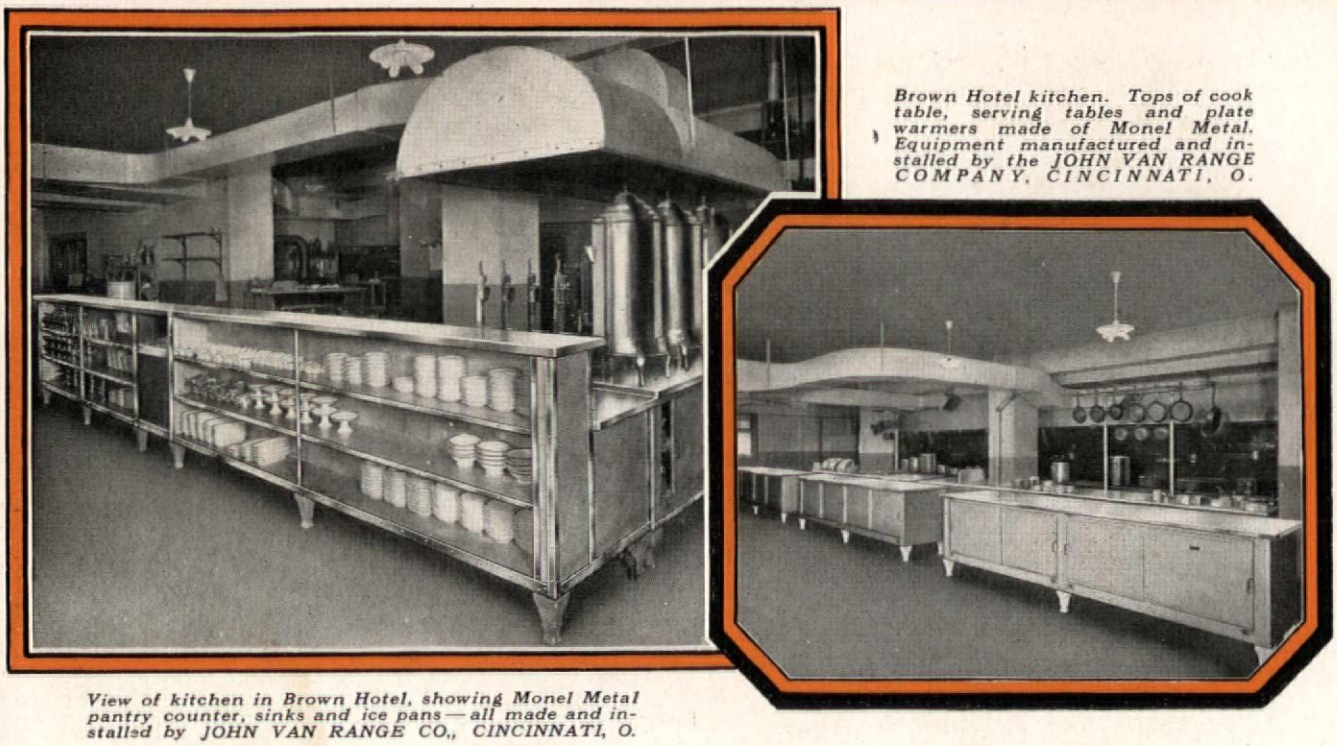
Monel Metal can be machined, cast, forged, spun, punched, drawn, brazed, soldered and welded. Wherever it is used, wear and corrosion are largely prevented. To help solve your metal problems you may have the benefit of our experience. Write for List B of available literature.

INCO MONEL METAL TRADE MARK

Monel Metal is a technically controlled Nickel-Copper alloy of high nickel content. It is mined, smelted, refined, rolled and marketed solely by The International Nickel Company. The name "Monel Metal" is a registered trade-mark.

INCO NICKEL TRADE MARK

THE INTERNATIONAL NICKEL COMPANY, 67 WALL STREET, NEW YORK CITY.



Brown Hotel kitchen. Tops of cook table, serving tables and plate warmers made of Monel Metal. Equipment manufactured and installed by the JOHN VAN RANGE COMPANY, CINCINNATI, O.

View of kitchen in Brown Hotel, showing Monel Metal pantry counter, sinks and ice pans—all made and installed by JOHN VAN RANGE CO., CINCINNATI, O.



The Brown Hotel, Louisville, Ky. Preston J. Bradshaw, Architect.

Louisville's new hotel kitchen—another Monel Metal salesman

IN the new Brown Hotel, and wherever emphasis is placed on quality, Monel Metal is specified for kitchen equipment. And because it invariably stands up in severe service, it is its own best salesman.

For Monel Metal not only looks spic and span when it is first installed, but it retains its attractive appearance through years of service.

It is inherently clean. It is rust-proof and corrosion-resisting. This latter quality makes it the ideal metal for surfaces coming in contact with food.

Most big new hotels are equipped with Monel Metal because of its proven superiority. Discriminating owners of smaller restaurants specify Monel Metal for the same reason.

You owe it to your clients to obtain all the facts regarding Monel Metal's suitability for restaurant and kitchen equipment. Send for hotel bulletin and List B of available literature.

THE INTERNATIONAL NICKEL COMPANY
67 WALL STREET NEW YORK CITY

INCo

Monel metal

American Architects Are Quick to Recommend Kelvinator

Kelvinator has good reason to appreciate the truth of the saying that the American architect has been responsible in a major degree for the superior material comfort and convenience of the American home.

Reports of Kelvinator being recommended for installation in new homes and apartments by architects, reach us continually.

It is perfectly plain that when the American architect is convinced of the utility of a household appliance, he is quick to recommend it to his clients.

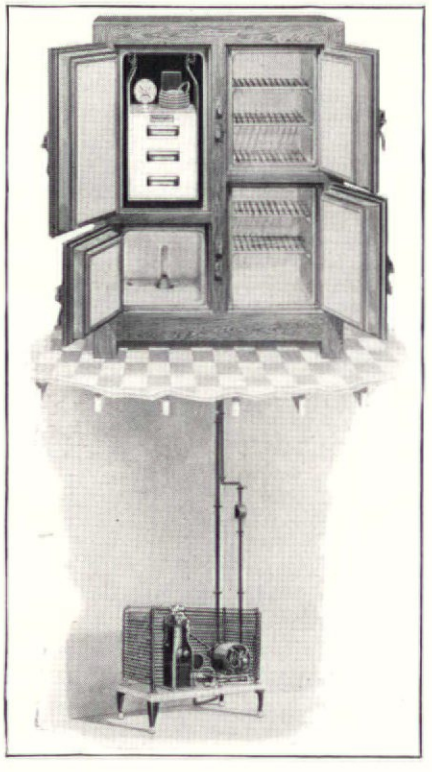
Builders Appreciate Kelvinator's Sales Value

Builders and architects recognize Kelvinator as a real necessity in the modern home or apartment, because it greatly increases the value, facilitates a quick and profitable sale and of course, aids wonderfully in assuring maximum convenience and cleanliness.

The appeal of automatic, carefree refrigeration to the American woman, is irresistible.

Whether she rents, or buys, or influences the rental or purchase, she cannot fail to prefer freedom from the fuss and the muss of ice, and the annoyance of waiting for ice delivery.

Women are learning, too, that Kelvinator does more than supply dry, even cold—that it is something more than perfected refrigeration that saves its cost in the food wasteage it prevents.



She knows that Kelvinator is to the preparation of food by freezing, what the gas or electric range is to the preparation of food by heat.

Ices, salads, and many other delicious desserts are easily and quickly prepared in the Kelvinator ice trays in which, also, cubes of pure ice can be frozen for table use.

Kelvinator Owners Are Enthusiastic

The thousands of Kelvinator owners throughout America enthusiastically praise its convenience, its automatic, carefree service, and its sound economy.

One of our recommendations to Kelvinator prospects is that they consult Kelvinator owners and learn first-hand just what they have to say about its wonderful convenience.

Kelvinator is made and marketed by an international organization, which pioneered the way to successful electric refrigeration. It is as fully perfected as is the washing machine, the vacuum cleaner or any other accepted household appliance.

It is endorsed by Good Housekeeping Institute, the New York Tribune Institute, the Modern Priscilla Proving Plant.

Learn all the facts about Kelvinator. Write today for your copy of "Specifications and Data" and the name of your nearest Kelvinator dealer.

Kelvinator Corporation, 2032 West Fort Street, Detroit, Mich.

Established 1914

Kelvinator

Electric Refrigeration



Protect His Pocket

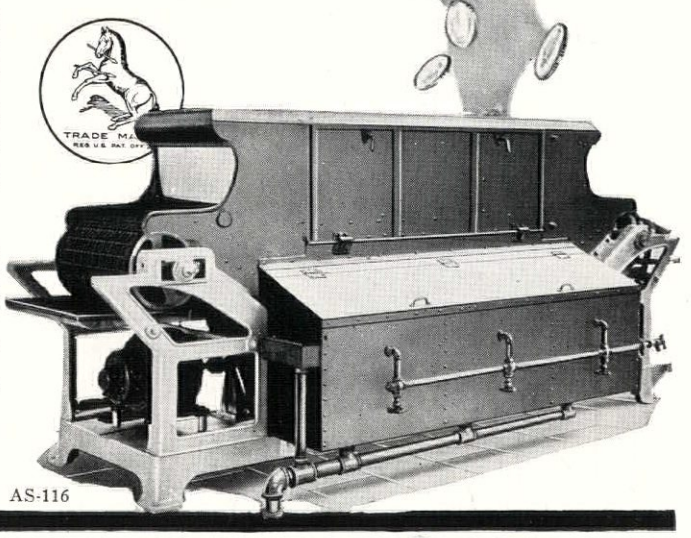
Proper dishwashing design will prevent loss of the hotel or restaurant operator's profits.

HOTELS and restaurants needlessly spend thousands of dollars annually in maintaining old-fashioned dishwashing equipment. Continuous dish breakage, expensive repair bills and excessive labor payrolls reduce their profits.

The architect can point out the economical method of washing tableware. In the process of washing dishes, the Autosan usually effects a 50 per cent saving. Dish breakage is usually reduced 60 per cent; labor payrolls are cut in half and the Autosan gives its owner continuous, uninterrupted service years after less efficient equipment has been abandoned.

There is an Autosan model to meet every requirement of capacity and space. Architects will find in Folder W-116 much helpful information for the planning of a modern dishwashing department. Write for your copy.

Colt's Patent Fire Arms Mfg. Co.,
Hartford, Conn., U.S.A.



Illustrated-Model CD-3 Autosan, which washes all tableware for establishments feeding 1000 or more persons per meal. There is an Autosan for every size and type of establishment.

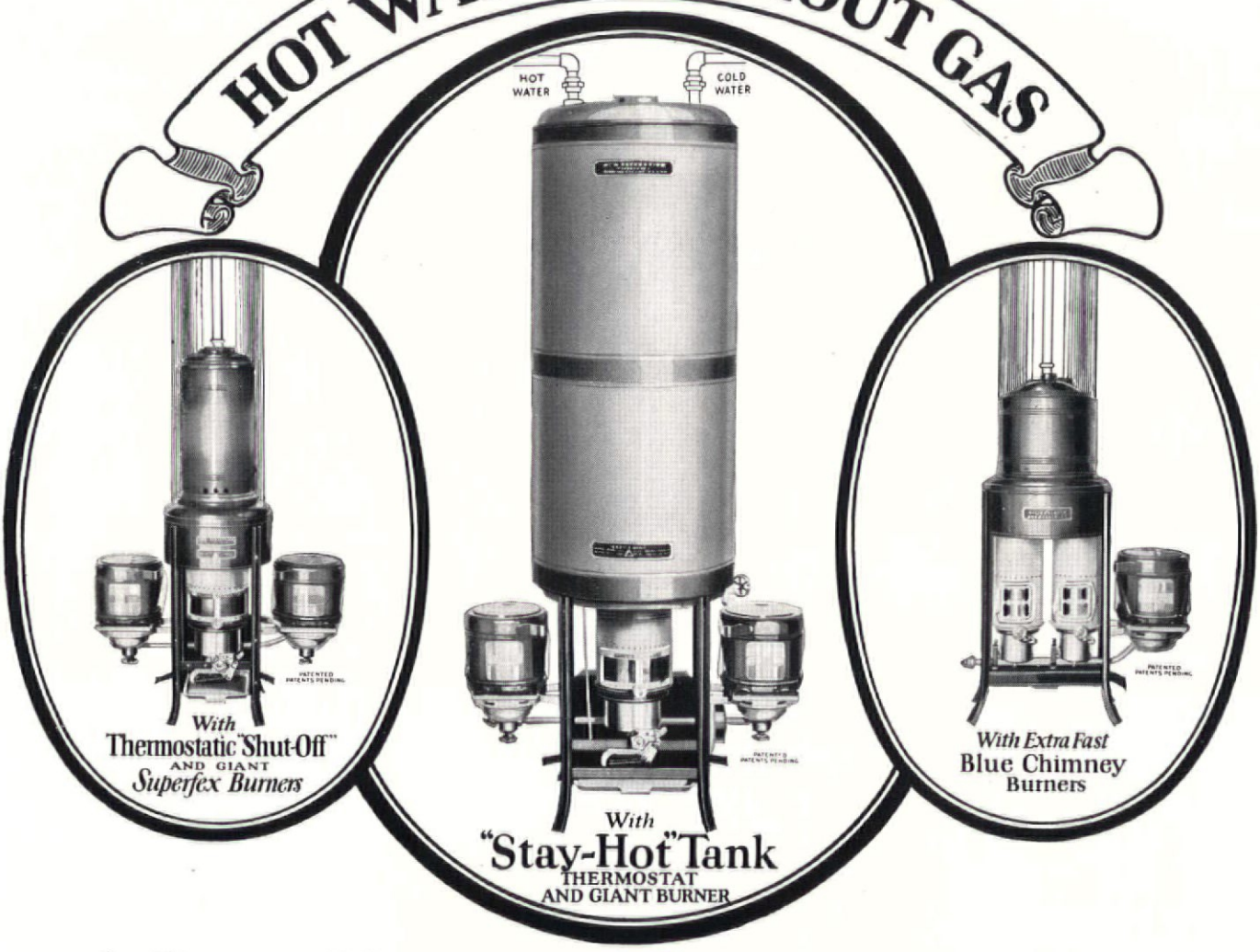
AS-116

AUTOSAN

TRADE MARK REGISTERED U.S. PAT. OFFICE

DISH AND SILVER CLEANING MACHINE

HOT WATER WITHOUT GAS



A Great New Water Heating Invention

In the complete new line of New Perfection Kerosene Water Heaters the nation-wide desire for an economical and dependable *kerosene* water heater is, at last, completely satisfied.

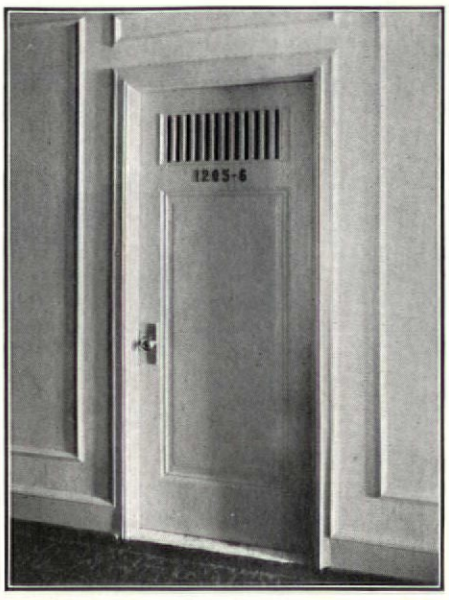
Improved and powerful New Perfection burners; thermostatic "Shut-off" of the flame, and a "Stay-Hot" tank which keeps the water hot for 36 hours after the flame is turned off, are new and revolutionary ideas in kerosene-burning water heater service. They give hot water in 5 minutes to start the day; in 10 minutes for washing dishes; in 30 minutes for the bath; a new washday convenience.

Architects and Builders who design and build homes beyond the gas mains can specify and recommend these heaters with complete confidence that they will operate satisfactorily. Illustrated catalog on request.

THE CLEVELAND METAL PRODUCTS CO., *7552 Platt Ave., Cleveland, O.*

Also makers of New Perfection oil cook stoves, ranges and room heaters.

NEW PERFECTION
Kerosene Water Heaters



Typical door in a modern hotel equipped with VENTADOOR, a ventilating panel that excludes light and vision. SEND FOR BOOKLET CATALOGUE IN SWEET'S

VAN ZILE VENTILATING CORPORATION 280 MADISON AVE NEW YORK CITY



SNOW WHITE STEEL

STYLE F
Recessed.
Mirror-Door.
Plate Glass-Shelves.
Five Sizes.

Durable—Sanitary Beautiful

THE finest bathrooms are improved by Hess Steel Cabinets and Mirrors. They retain their beauty forever—clean as easily as china. They never warp, swell nor open at joints. Doors never sag nor bind. Made of smooth annealed steel, pressed, welded into seamless form, and finished with several coats of snow-white enamel, separately baked and rubbed to a glassy finish.

Write for catalogue; or see Sweet's Index.

HESS WARMING & VENTILATING CO.
Makers of Hess *Welded Steel* Furnaces
1216 S. Western Avenue, *Chicago*

HESS CABINETS and MIRRORS
Snow-White Steel



Mt. Sinai Hospital, New York City, equipped with two Pfaudler Glass Lined Laundry Chutes. Architect, Arnold W. Brunner, New York City.

You have seen the above building in many advertisements in this magazine. That is because it is up-to-date. Included in its up-to-date equipment are two Pfaudler Glass Lined Laundry Chutes.

A labor-saver, and a mark of distinction, specify it in your next hospital or hotel.

THE PFAUDLER CO., Rochester, N. Y.

Makers of the Glass Lined Steel Laundry Chute

See our Catalogue in SWEET'S

Mail this coupon for new brochure.

A.F.
6-24

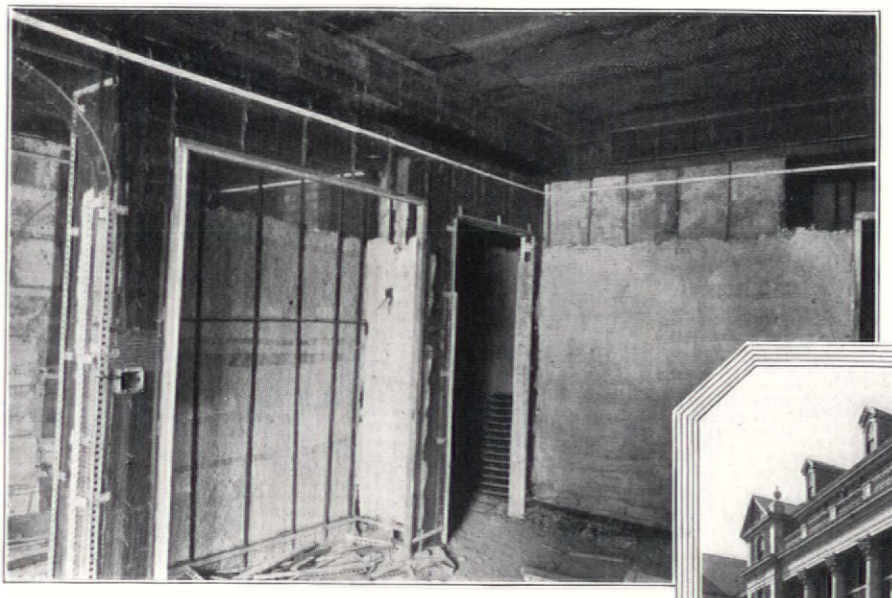
MEMO.

Send me your new brochure, "A Laundry Chute That Is Glass-Lined."

Name .....

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GLASS LINED Pfaudler **LAUNDRY CHUTE**



25,000 yds. 27 ga. KNO-BURN were used by Architects, Herbert M. Greene Company of Dallas, for the two inch solid partitions in the Scottish Rite Dormitory at Austin, Texas.



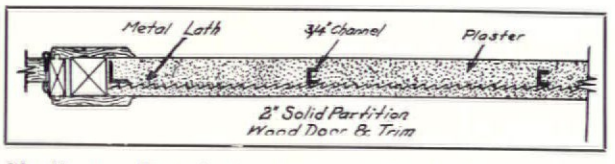
Lessening the Thickness of Walls

IN many types of structures—hotels, hospitals, flat and office buildings, etc., where it is desirable to gain every inch of rentable space possible, this can often be advantageously achieved without detracting from the design, by the use of solid two inch Metal Lath and plaster partitions.

The resulting gain in floor area, as compared with 4 in. or 6 in. tile walls, amounts to approximately 7 sq. ft. in an average 9x12 ft. room, or about 10 rooms in a 500 room structure.

In addition, there is the SAVING in CONSTRUCTION COST. In practice, these "skeleton" walls have proven to be highly sound-proof and fire-resistive, and it has developed that they have considerable resistance to impact.

Their use is therefore frequently indicated, not only for the above mentioned types of structures, but as stairway enclosures, elevator enclosure partitions, walls dividing factory buildings into units, special rooms for film storage, between office and factory, shower stalls, remodeling old buildings, etc.



Shallow electrical equipment designed especially for these two inch Metal Lath and plaster partitions is now available from the Arrow Electric Company and other leading manufacturers of electrical apparatus. ¶ More detailed information regarding this interesting and economical type of construction, with samples of KNO-BURN Metal Lath, gladly sent.

NORTH WESTERN EXPANDED METAL CO.

1234 Old Colony Bldg., CHICAGO



Put This Handbook Into Your Files



THE results of years of waterproofing research and practice are packed—ready for use—into the new GF Waterproofing Handbook. It is filled with working drawings, methods, specifications, photographs and tables, under the following main divisions:

Sub-Structural Waterproofing—foundations, basements, pits, tanks, pools, containers and other structures subjected to hydrostatic pressure or dampness.

Super-Structural Waterproofing—proofing walls against weathering and dampness, stain-proofing cut stone, preserving and beautifying stucco, brick and concrete walls and filling expansion joints.

Cement and Wood Floor Preservation—hardening, dustproofing, decorating and waterproofing cement and wood floors—accelerating the setting and preventing freezing of newly laid cement floors.

Technical Paints and Coatings—proofing walls, floors and containers against acids and oils, structural steel against rust, timbers against dry rot and decay, etc. A copy is yours for the asking—may we send it?

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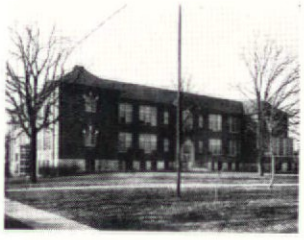
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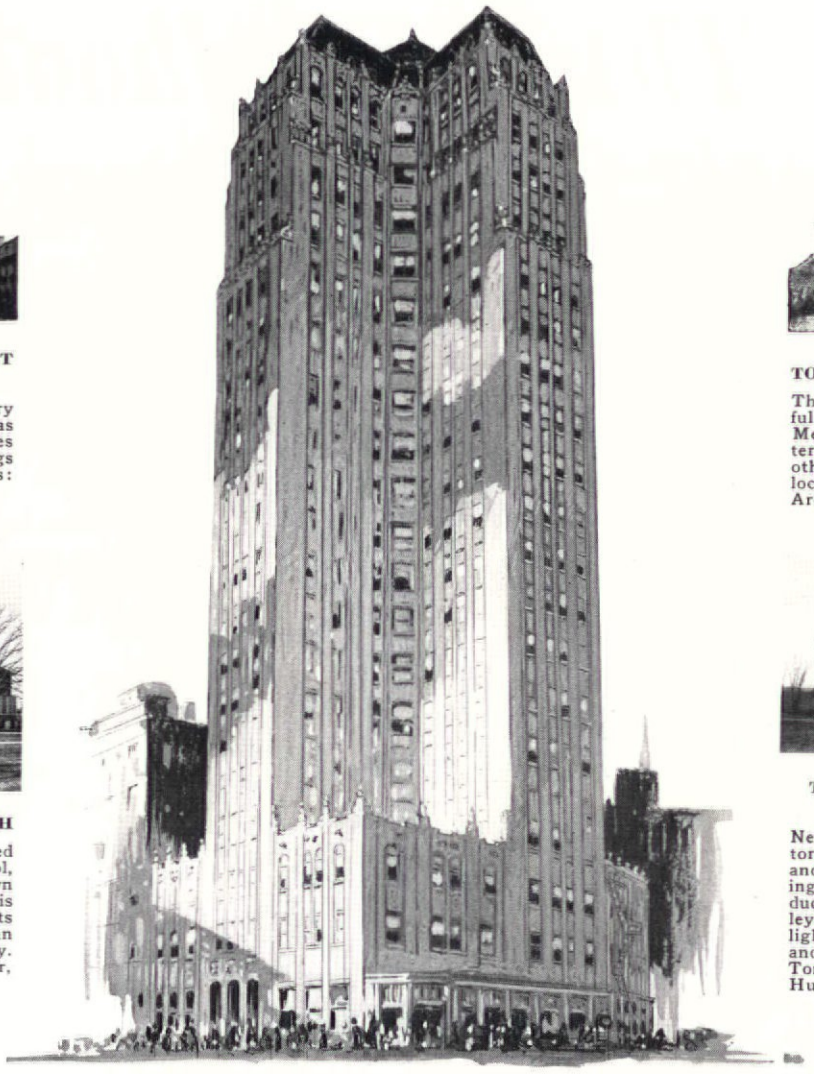
TONCAN FOR ALL SHEET METAL

In the South Shore Country Club, Chicago, Ill. Toncan was used for window frames, eaves trough, conductor pipe, flashings and fire doors. Architects: Marshall and Fox.



TONCAN FOR METAL LATH

Toncan Metal Lath was used throughout the Avery School, Webster Grove, Mo., shown above. Metal Lath makes this structure fire-resisting, prevents cracks: and the use of Toncan is assurance of lath durability. Architect: Wm. B. Ittner, St. Louis, Mo.



MEDICAL ARTS BUILDING, DALLAS, TEXAS

Barglebaugh & Whitson, Architects—Toncan Sheet Metal Work by Collinsville Manufacturing Company, Dallas, Texas



TONCAN FOR RESIDENCES

This is one of the many beautiful residences in which Toncan Metal has been used for gutters, valleys, conductor pipe and other sheet metal work. It is located at Montecito, Calif. Architect: Reginald D. Johnson.



TONCAN FOR COLLEGE BUILDINGS

New Hampshire College dormitory for girls as shown above and also the Commons Building, have Toncan gutters, conductors, cornices, ridges, valleys, heat and vent ducts, skylight, ventilators, sink linings, and refrigerator linings, of Toncan Metal. Architect: E. T. Huddleston.

This will endure —

The architects vision a building—a tall splendid building that will endure. The idea is transferred from brain to paper, then from paper to steel and concrete—and the building lives and throbs with the spirit of commerce.

It will endure. The architects specified lasting materials. They chose Toncan Metal for the sheet metal work *though they were familiar with all other rust-resisting metals.*

Toncan Metal is iron, carefully made, skilfully fabricated, purified to the proper point and alloyed with enough copper to obtain the greatest resistance to rust and corrosion.

Wherever there is need for rust-resisting sheet metal, indoors or out, use Toncan.

Are you planning a barn, a home or a skyscraper? Use Toncan.

Your client has heard of Toncan, knows of its long-lasting qualities. He will approve your choice.

Our work is the production of iron, alloyed iron and steel. Write to us concerning any use of sheet metal in your work.

UNITED ALLOY STEEL CORPORATION, CANTON, OHIO

TONCAN
METAL

Commercially pure iron alloyed with copper to obtain the greatest possible resistance to rust and corrosion.

TONCAN
METAL
THIS IRON WILL ENDURE

U-LOY
STEELS

Special analysis and alloy steels made to your specifications or ours for any required purpose

MADE BY THE OLDEST AND LARGEST PRODUCERS OF HIGH-GRADE ALLOY STEEL

UNITED ALLOY STEEL CORPORATION



Before—
Worth $500.

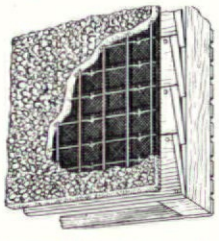


After—
Sold for $27,000.



New Homes from Old Houses

With a REINFORCED STUCCO "Overcoat"



National Steel Fabric Style P-214 is a base and reinforcement for stucco and plaster—it combines 5 building materials into 1; namely, sheathing, building paper, lath, "furring" strips, and reinforcement.

It is applied either direct to studs or over siding, clap-boards, sheathing, or insulation, in large sheets, by one man in one operation.

The remodeled home illustrated above was sold for $27,000 several months after the owner had been offered $500 for wrecking and removing the old house.

He simply remodeled it in National Steel Fabric Reinforced Stucco at a cost of $1,080, and added a new heating system, hardwood floors, and a breakfast room, at a cost of $4,000. His profit on the transaction was $21,920.

The advantages of a National Steel Fabric Reinforced Stucco "overcoat" are:

Lowest cost of remodeling.	Lower cost of heating.
Monolithic, Permanent Walls.	Warmer in winter.
No rebuilding of window frames.	Cooler in summer.
Crack-free, *reinforced* stucco.	No more painting.
Increased property value.	No more repairing.
Lower insurance premiums.	Personal satisfaction.

Everywhere there are numberless old, roomy houses, built in the era of good workmanship and materials but with poor exterior design. If you are interested in making *new homes* from such *old houses*, write for our free special Bulletin entitled "New Homes From Old Houses," which will be ready for distribution shortly.

NATIONAL STEEL FABRIC COMPANY

(Subsidiary of Pittsburgh Steel Company)

710 UNION TRUST BUILDING, PITTSBURGH, PA.

OFFICES: Atlanta, Chicago, Cleveland, Denver, Detroit, Houston, Los Angeles, New York City, Philadelphia, Pittsburgh Rochester, St. Louis, San Antonio, San Francisco

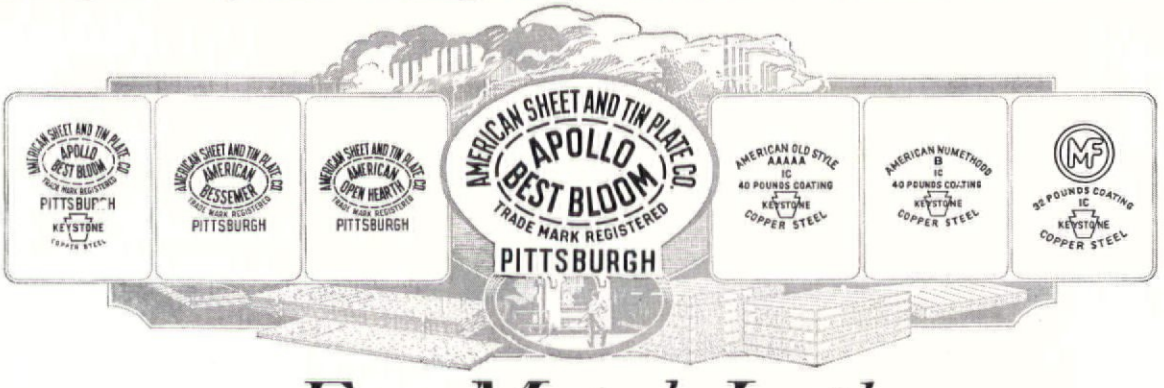
Use National Steel Fabric Style P-214

NATIONAL STEEL FABRIC CO

KEYSTONE COPPER STEEL

Black and Galvanized SHEETS and Roofing Tin Plates

Highest quality Roofing Plates produced—made from Keystone Copper Steel, grades up to 40 pounds coating—fireproof, durable, economical, satisfactory.



For Metal Lath

Specify Keystone Copper Steel—leading manufacturers use it. Metal lath means safer and better construction. Insist upon Keystone quality.

The destructive enemy of sheet metal is *rust*. It is a well established fact that an alloy of copper gives to Steel Sheets and Tin Plates the maximum of *rust-resistance*. Keystone Copper Steel is unequaled for roofing, siding, spouting, gutters, culverts, metal lath and similar uses. It assures roofs and sheet metal work that will withstand the ravages of fire, wear and weather. Shall we send proofs from actual service tests? We manufacture Steel Sheets and Tin Plates for all purposes and specially adapted to the requirements of architects and contractors: Black Sheets, Special Sheets, Apollo and Apollo-Keystone Galvanized Sheets, Corrugated Sheets, Formed Roofing and Siding Products, Roofing Tin Plates, Bright Tin Plate, Black Plate, Etc. Sold by leading metal merchants. Our products represent the highest standards of quality and utility. Write nearest Sales Office for quotations and Testimony booklet.



American Sheet and Tin Plate Company

General Offices: Frick Building, Pittsburgh, Pa.

DISTRICT SALES OFFICES:

Chicago Cincinnati Denver Detroit New Orleans New York Philadelphia Pittsburgh St. Louis

Export Representatives: United States Steel Products Company, New York City

Pacific Coast Representatives: United States Steel Products Company, San Francisco, Los Angeles, Portland, Seattle

When the World Comes to an End~

the Devil is going to have a hard time with "CEMENTILE" Roofs



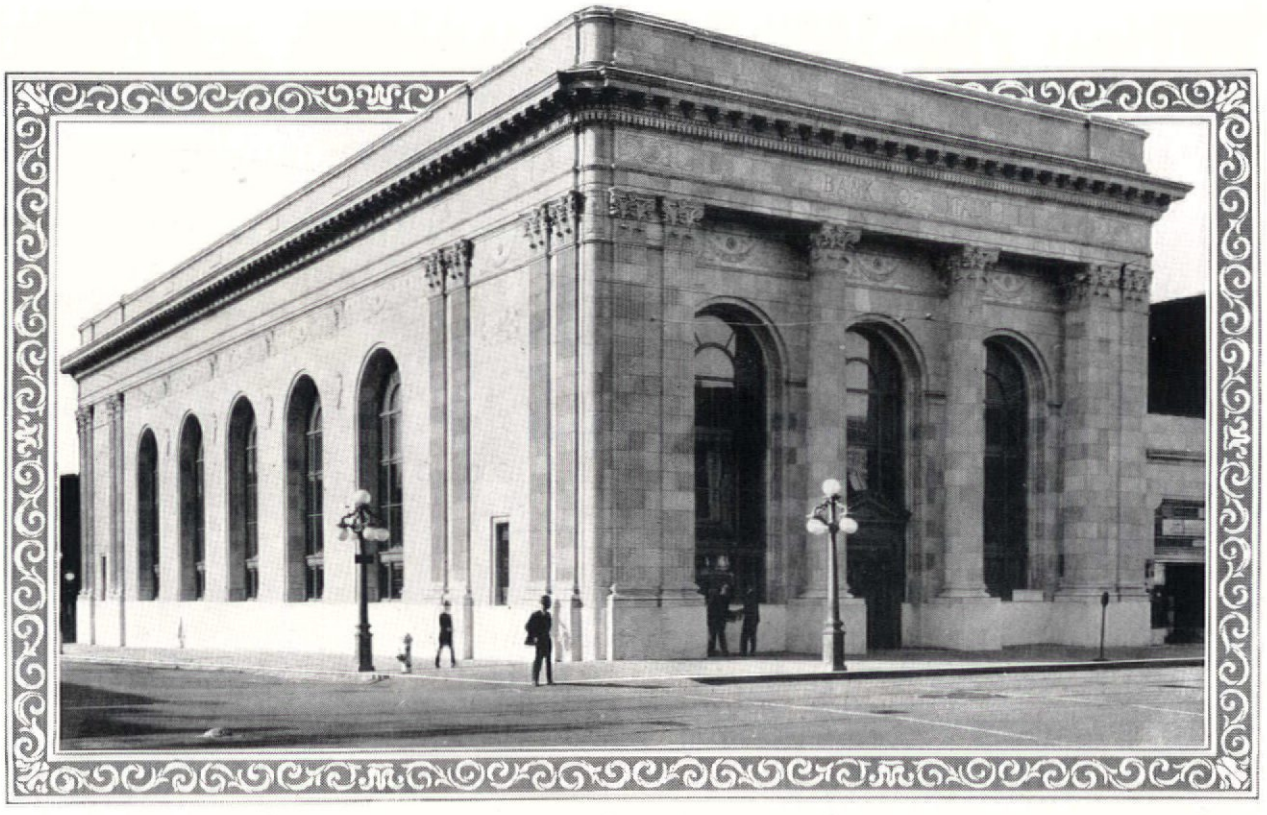
"The buildings cook up fine but the roof that fellow put on in 1924 hasn't even been phased. Fire up boys. We need all the heat we can get."

AMERICAN CEMENT TILE MANUFACTURING CO.
831 Oliver Building, Pittsburgh, Pa.
PLANTS
Wampum, Pa. Lincoln, N. J. Birmingham, Ala.
OFFICES
Pittsburgh New York Philadelphia Atlanta Birmingham

Specify "CEMENTILE" to beat the Devil

CEMENTILE

CEMENTILE *The Roof Everlasting* CEMENTILE



Carey Roofed

BANK OF ITALY BUILDING

Sacramento, California

George C. Sellon & Co.
Architects
Sacramento, California

IN 1921 San Francisco architects specified Carey Built-up Roofing for the main building of one of the greatest banking institutions in the country—The Bank of Italy with branches at that time in eighteen cities.

Recently Sacramento architects specified Carey Built-up Roofing for the building to house the Sacramento branch. Today The Bank of Italy has branches in forty-one cities.

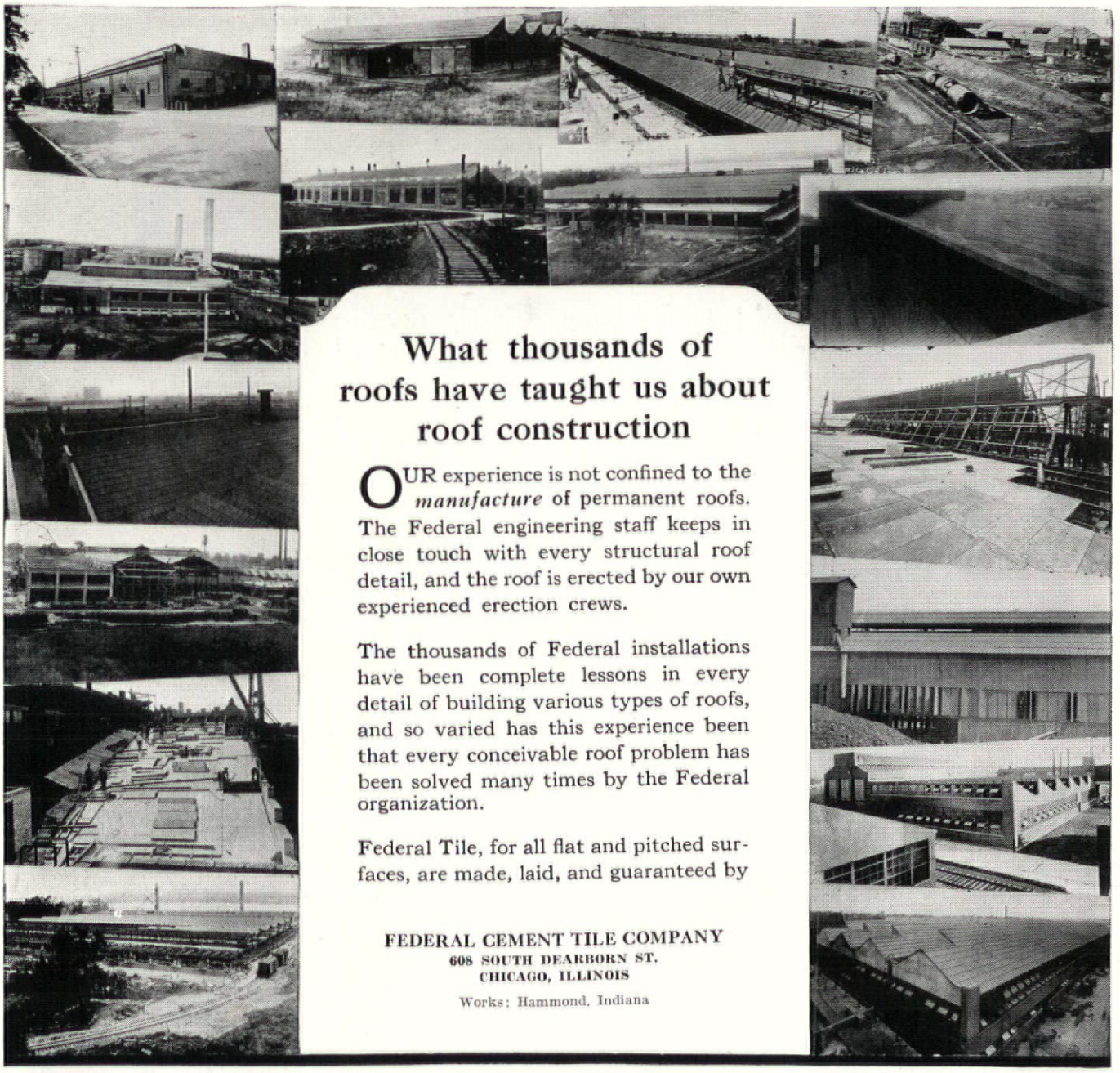
Successful Banks and successful architects rely on the roofing that is growing in sales, and is successful in its service.

THE PHILIP CAREY COMPANY
504-524 Wayne Avenue, Lockland, Cincinnati, Ohio

"A Roof for Every Building"

Carey
BUILT-UP ROOFS

5 A-24



What thousands of roofs have taught us about roof construction

OUR experience is not confined to the *manufacture* of permanent roofs. The Federal engineering staff keeps in close touch with every structural roof detail, and the roof is erected by our own experienced erection crews.

The thousands of Federal installations have been complete lessons in every detail of building various types of roofs, and so varied has this experience been that every conceivable roof problem has been solved many times by the Federal organization.

Federal Tile, for all flat and pitched surfaces, are made, laid, and guaranteed by

FEDERAL CEMENT TILE COMPANY
608 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS

Works: Hammond, Indiana

FEDERAL Cement Tile

"The Roof for Permanence"

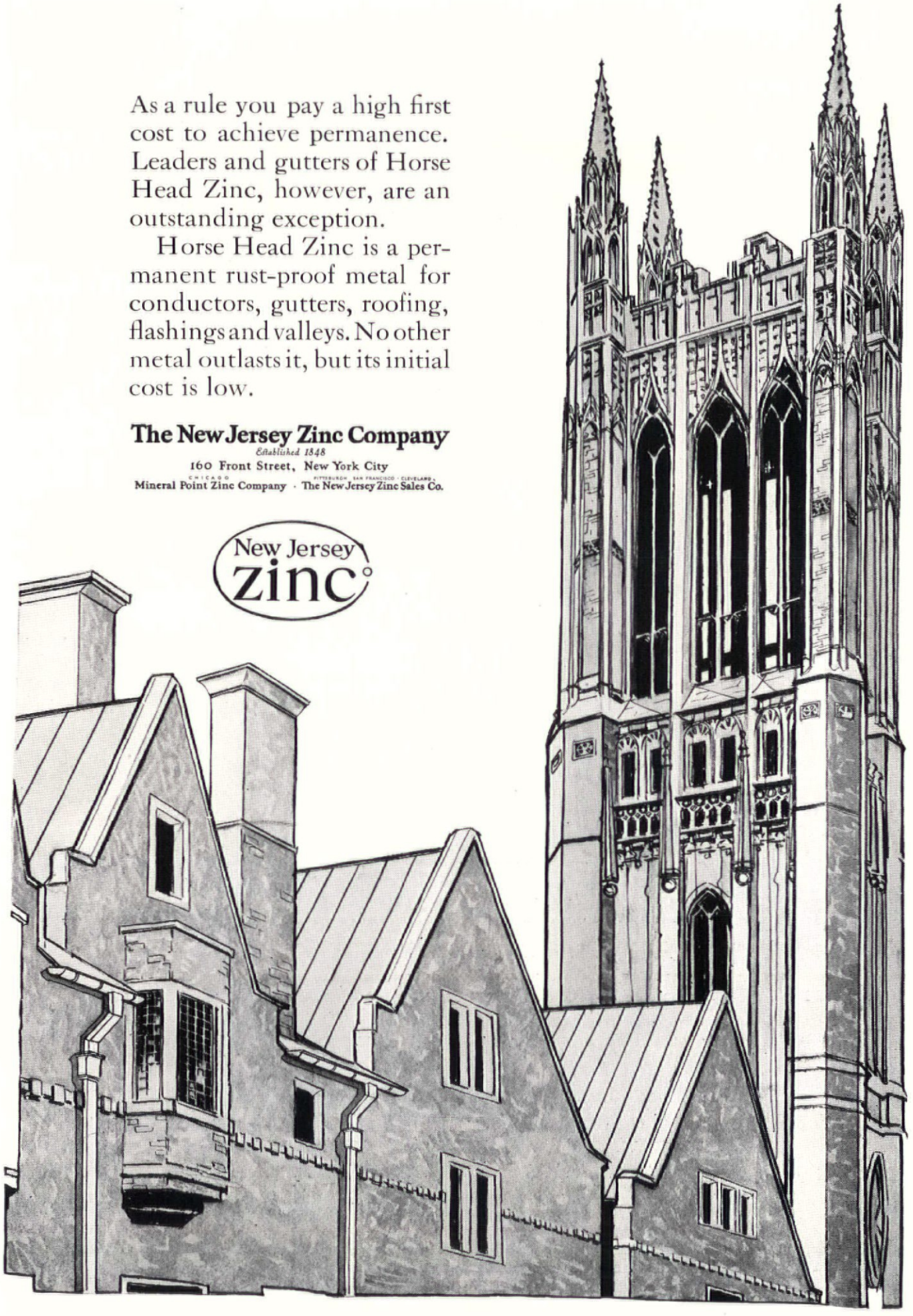


As a rule you pay a high first cost to achieve permanence. Leaders and gutters of Horse Head Zinc, however, are an outstanding exception.

Horse Head Zinc is a permanent rust-proof metal for conductors, gutters, roofing, flashings and valleys. No other metal outlasts it, but its initial cost is low.

The New Jersey Zinc Company
Established 1848
160 Front Street, New York City
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Mineral Point Zinc Company · The New Jersey Zinc Sales Co.
PITTSBURGH · SAN FRANCISCO · CLEVELAND

New Jersey zinc°





Ludlow & Peabody, Architects, New York



The Old Building

The new Johns-Manville Building— A Greater Guarantee

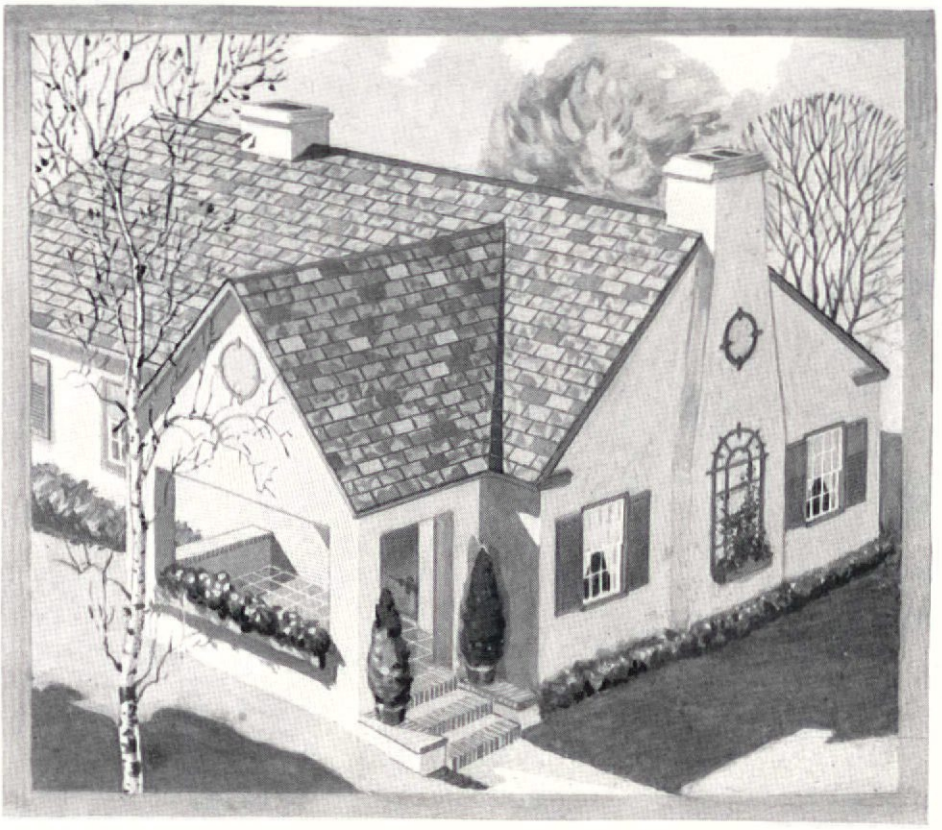
THE new Johns-Manville building is perhaps the strongest guarantee that an organization could offer of continued high quality and painstaking service.

This great structure, the tallest of all buildings in its immediate neighborhood, is just another symbol of the importance of asbestos products to the nation. It is a further assurance that Johns-Manville has resolved to render you even more efficient service in the future than in the past. It is a further warrant of materials best designed and most carefully made for their particular purpose.

JOHNS-MANVILLE

JOHNS-MANVILLE Inc.
292 Madison Avenue, at 41st Street, New York City
Branches in 62 Large Cities
For Canada: CANADIAN JOHNS-MANVILLE CO., Ltd., Toronto

Through Asbestos and its allied products
INSULATION
BRAKE LININGS
ROOFINGS
PACKINGS
CEMENTS
FIRE PREVENTION PRODUCTS



RICHARDSON *Product*

From the makers of Flex-a-tile Housetops, Viskalt Membrane Roofs, Viskote, and similar products

The Richardson opal roof shown on the bungalow, designed for House Beautiful *magazine by Puckey and Jenkins, Architects, Chicago*

Never before such a roof as this!

Rare beauty of color in the opal *roof blended by Richardson from gems of slate*

Skillfully blending rare gems of color in slate, Richardson now offers an *opal* roof of exclusive new beauty.

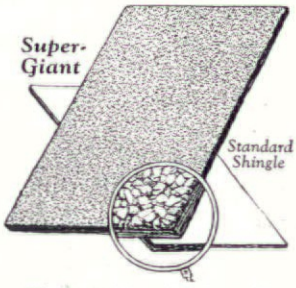
This beautiful new roof is built from shingles on which are combined in almost infinite variety the two favorite Richardson colors in slate—weathered brown and jade green.

Applied to the roof just as they come from the bundle, Richardson opal shingles give a coloring like autumn leaves floating on a woodland pool.

Architects, home owners and builders who have seen this roof agree that it offers the most distinctive of the color combinations in Richardson Multicrome Roofs.

The Richardson Multicrome Roof

In addition to opal, the Multicrome Roof is laid in other pleasing color effects. The rare *weathered brown*, an exclusive Richardson color in slate, has proved especially popular when applied in combination with other Richardson shingles of *jade green, tile red,* or *black pearl.* In fact, there is a Multicrome Roof to harmonize with every color scheme, and to please every client's taste.



The Super-Giant Shingle — 50% thicker, 100% more rigid, and 35% more economical in cost of laying

The new colors, opal and weathered brown, are used only on the Richardson Super-Giant Shingle — famous for its beauty and endurance.

With its inner foundation of Richardson felt, for fifty years recognized as the best; coated and saturated with Viskalt, the vacuum-processed waterproofing, 99.8% pure bitumen, the Super-Giant assures you *lasting* beauty for your roof.

50% thicker, it casts a deeper shadow-line on the roof, thus it is suitable for more expensive homes as well as for those of moderate cost.

Write for our new booklet

If you have not already discovered the *lastingly* beautiful effects made possible by the new weathered brown, write us. We will send you our beautiful new booklet, *Roofs of Distinction*, together with samples of Richardson Super-Giant Shingles in weathered brown and other colors. And, remember—for every roofing use there is a Richardson product.

The RICHARDSON COMPANY
Lockland (Cincinnati) Ohio

Chicago New Orleans New York City
Atlanta Dallas

RICHARDSON ROOFING

Clip and mail this coupon

THE RICHARDSON COMPANY
Dept. 62-E, Lockland, Ohio

Gentlemen: Please send me samples of Richardson Super-Giant Shingles, your new booklet, and further facts about Richardson Roofing.

Name .....

Address .....

© 1924, The Richardson Company

Thatchslate Roofs



Glimpse of English village in Philadelphia
Spencer Roberts, Architect
All the roofs are slate thatched

TO be a genuine Thatchslate roof, requires a certain definite shaping and skilful cutting of the slate. In no other way can the slate thatched effect be secured.

Looking at it casually you might think it was just a random laying of varying sizes, thicknesses, shapes and colors. Careful study, however, reveals a very definite handling, which although not apparent, is the basic reason for the charm and enduring satisfaction of Thatchslate Roofs.

Thatchslate Roofs are entirely an Emack design and product. Each slate is individually cut on a specially designed machine, giving varying effects obtainable in no other way.

Send for Circular No. 23.

Our reputation is your specification.

THE JOHN D. EMACK CO.

Roof and Flagging Displays at Our Offices

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NEW YORK
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17 East 49th Street

Samson Spot Sash Cord



Trade Mark Reg. U. S. Pat. Off.

Made of extra quality stock, carefully inspected, and guaranteed free from all imperfections of braid or finish. Can be distinguished at a glance by our trade mark, the Colored Spots, used only with this quality.

By using Samson Spot Cord instead of roughly braided cord, made of inferior and adulterated material, you can be sure of uninterrupted service for twenty-five years or more.

The difference in cost between Spot Cord and the cheapest kind is small in comparison with the expense of replacing one broken cord.

Send for sample card

Samson Cordage Works

Boston, Mass.





"That Architect Always Knows"

Because everyone said that about him, he was called in on all worth-while building projects in his community.

He had built his reputation by a simple plan—by knowing and recommending the leading firm in each important line of building materials and equipment.

KEWANEE was his choice for private systems of water supply, electric lights and sewage disposal—for he knew KEWANEE had 200 systems, backed by a quarter century of experience.

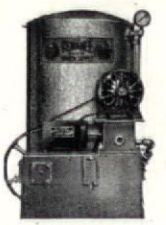
It will pay you too, to know and recommend KEWANEE systems. The KEWANEE Specification Book for architects gives you complete engineering data for planning any installation of private water supply, electric light or sewage disposal. KEWANEE counsel is free to you—at your request.

Write for the KEWANEE Specification Book today.

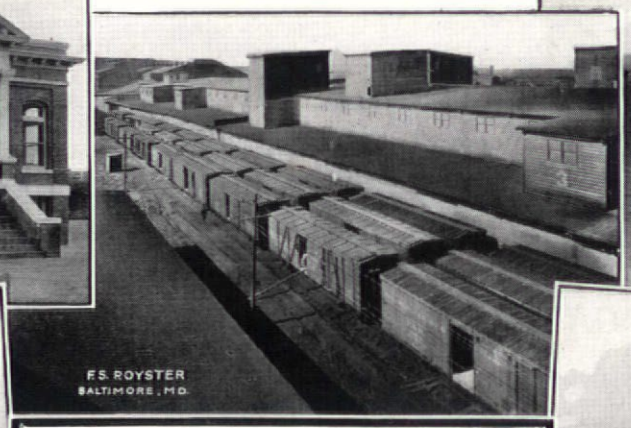
KEWANEE PRIVATE UTILITIES COMPANY
442 S. Franklin St., Kewanee, Ill.

KEWANEE

"BUNGALOW MODEL"
Water Supply System
NOW
$140













Built-up Roofs of Tested Materials

The high quality of the materials which go into Ruberoid Built-up Roofs is one reason why architects in all parts of the country are specifying them. Ruberoid Built-ups have won a reputation for unusual durability from New England to the Pacific and from Texas to the Canadian border.

In spite of the wide range of climatic conditions, the ingredients—Ruberoid Cap-sheet, Ruberoid Solid-cement and Ruberoid Asphalt Felt—retain their weatherproof qualities. Even in the Middle West, where severe winters often follow intensely hot summers, Ruberoid Roofs do not crack or soften. Many of them are laid on industrial plants where steam and gases would destroy inferior products. But Ruberoid proves its quality on *any* roof.

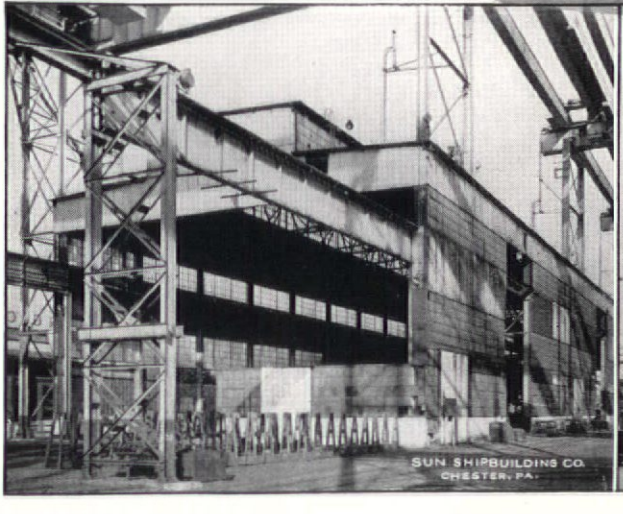
Samples and specifications for various types of Ruberoid Built-up Roofs will be sent you on request.

The RUBEROID Co.
95 Madison Avenue, New York
Chicago Boston

RU-BER-OID
Built-up Roofs









Publishers Like

BLOXONEND FLOORS

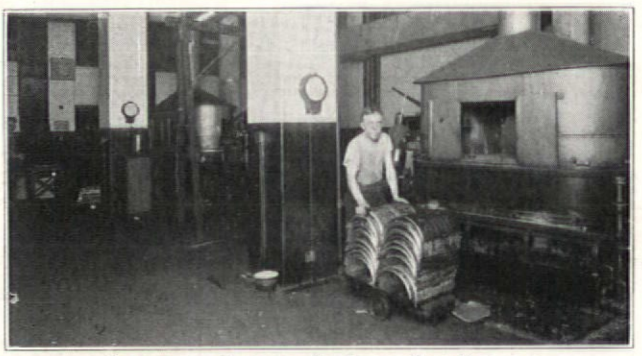
Because they Speed up Operations



COMPOSING ROOM, WICHITA BEACON



PRESS ROOM, FRESNO, CALIF., BEE



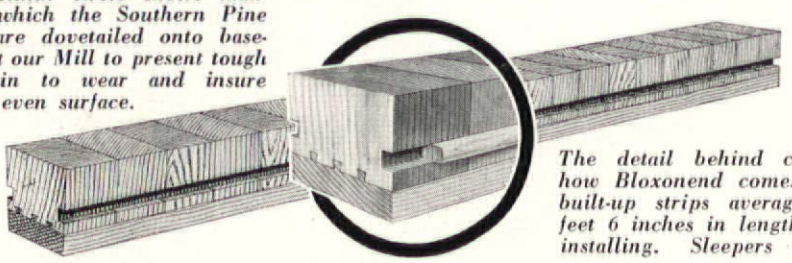
STEREOTYPE FOUNDRY, ST. LOUIS POST DISPATCH

The mechanical equipment installed in the publishing plants illustrated herewith was not bought on a price basis; neither was the flooring.

The owners and architects sought a flooring that would increase plant efficiency by providing a working surface comfortable under foot and one that would stand up and stay smooth under the continual grind of small wheels or casters carrying top-heavy loads. Bloxonend was specified because it meets these requirements.

Notice the construction of Bloxonend. No loose blocks; no tar or creosote. Just a bright, clean end-grain flooring designed to *LAY SMOOTH and STAY SMOOTH.* Easily adapted and quickly installed in old buildings without interrupting operations.

Detail within circle shows manner in which the Southern Pine Blocks are dovetailed onto baseboards at our Mill to present tough end grain to wear and insure smooth, even surface.



The detail behind circle shows how Bloxonend comes to job in built-up strips averaging over 7 feet 6 inches in length, ready for installing. Sleepers unnecessary.

Because it is exceptionally durable and affords a resilient surface of lasting smoothness, Bloxonend is being used extensively in all industries where floors are subjected to hard wear. Architects everywhere also specify it for gymnasiums and manual training departments in connection with schools. Write Nearest Office for Architectural Specifications.

Carter Bloxonend Flooring Company

Kansas City, Missouri

New York
501 Fifth Avenue

Chicago
332 S. Michigan Ave.

Boston
910 Broad Exchange

BLOXONEND FLOORING
Lays Smooth *Stays Smooth*

Cleveland
1900 Euclid Ave.

San Francisco
907 Hobart Bldg.

Detroit
2328 1st Nat'l Bank Bldg.

COLORMIX

WHERE COSTS ARE LIMITED
Use Tile-Like COLORMIX

COLORMIX—which is a perfected, permanent concrete dye dissolved in the mixing water—makes concrete a thing of wear-proof beauty. It gives an atmosphere of quality previously secured only by more costly materials.

It assures a uniform, tile-like surface, in any of eight permanent colors.

At the same time Colormix increases the tensile and compressive strength and makes the concrete better.

Its architectural applications are almost unlimited.

THE MASTER BUILDERS COMPANY

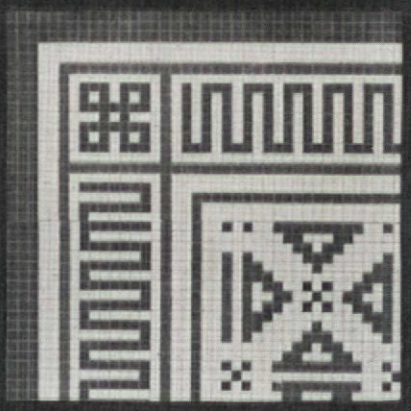
Sales Offices in Ninety Cities — CLEVELAND, OHIO — Factories at Cleveland and Irvington, N. J.

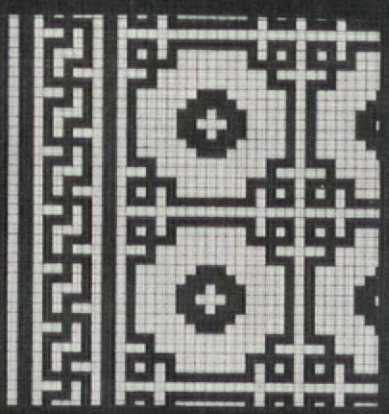
Library Bureau, Chicago, Ill., where 30,000 square feet of Brown Colormix have been installed.

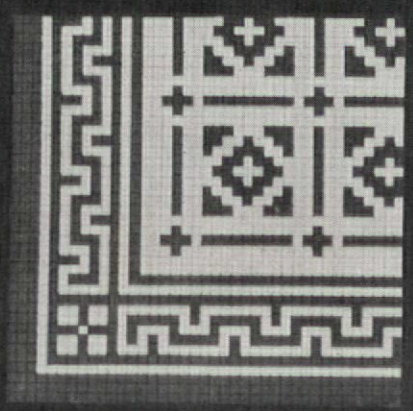
Architect
Mundie & Jensen
Contractor
E. L. Archibald Co.



NORTON FLOORS







CERAMIC MOSAIC FLOORS MADE SAFE

Alundum Tile is now being made in the ceramic mosaic sizes ¾ in. square and 1 in. hex and in colors, brown, buff, gray, green, salmon, and white.

Alundum Ceramic Mosaic Tile may be used exclusively or in combination with vitreous or glazed tile, thereby attaining a non-slip ceramic mosaic floor.

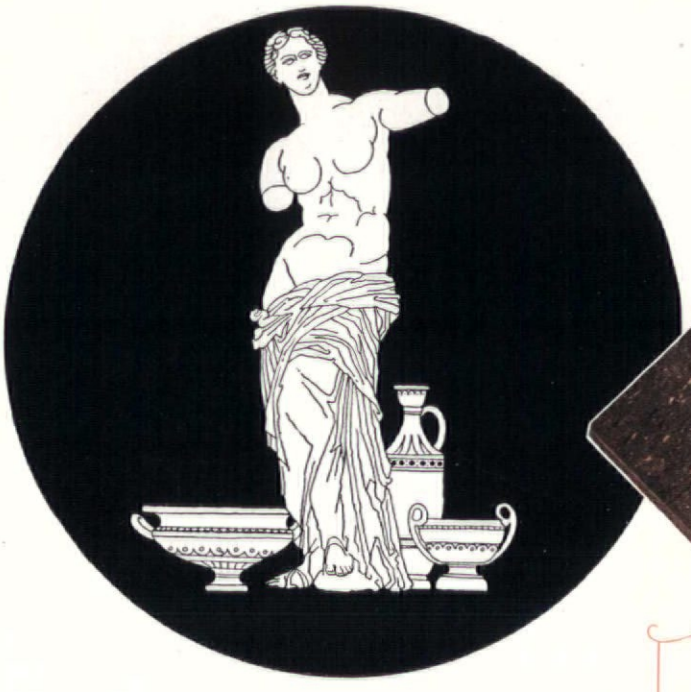
Ideal for the edge of swimming pools, shower baths and washrooms, behind lunch and soda fountain counters, in restaurants and for store entrances.

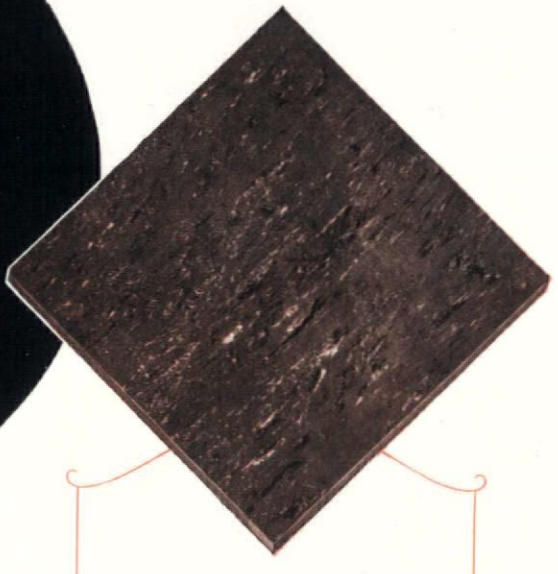
Like the other Norton Floors, Alundum Ceramic Mosaic Tile takes its name from Alundum abrasive. The use of this hard, tough abrasive so well known as the abrading element in Norton Grinding Wheels, gives to the tile a surface that is durable and practically slip-proof.

NORTON COMPANY
Worcester, Mass.
NEW YORK CHICAGO DETROIT PHILADELPHIA
HAMILTON, ONTARIO

SAFE DURABLE QUIET

"U. S." TILE FLOORING





Beauty

Floors of "U. S." Tile, richly toned to harmonize with the most exquisitely decorated interior, add that final touch of distinctive beauty, so desired by architect and interior decorator.

Durability, quietness, sanitation, and decorative effect — you assure your client all of these when you specify "U. S." Tile.



United States Rubber Company

1790 Broadway, New York City

Manufacturers of Rubber Flooring since 1897



Part of the 325,000 square feet of floor treated with Hard-n-tyte.



Atlantic Building, Philadelphia, of the Atlantic Refining Company. Joseph F. Kuntz, Architect, Philadelphia and Pittsburgh. Metzger, Fisher & White, General Contractors, Philadelphia. A. Erickson, Contractor's Superintendent.

Hard-n-tyte concrete floors

in one of Philadelphia's newest and largest office buildings

The new Atlantic Building of the Atlantic Refining Company is one of the largest office buildings in Philadelphia. It is also one of the finest—nothing has been overlooked to make it so.

Every material going into this building had to be of the best quality. Concrete floor hardeners were no exception. Several were first analyzed and tested in actual use, but Hard-n-tyte was selected and applied to the 325,000 sq. ft. of floor surface.

Hard-n-tyte is not sold by the pound or barrel—but as a service for securing the greatest possible resistance to wear. It is applied on the job by authorized representatives of Hard-n-tyte Engineering Service—and floors hardened under their supervision are fully guaranteed by the General Chemical Company.

The Hard-n-tyte booklet gives complete information. Write for it.

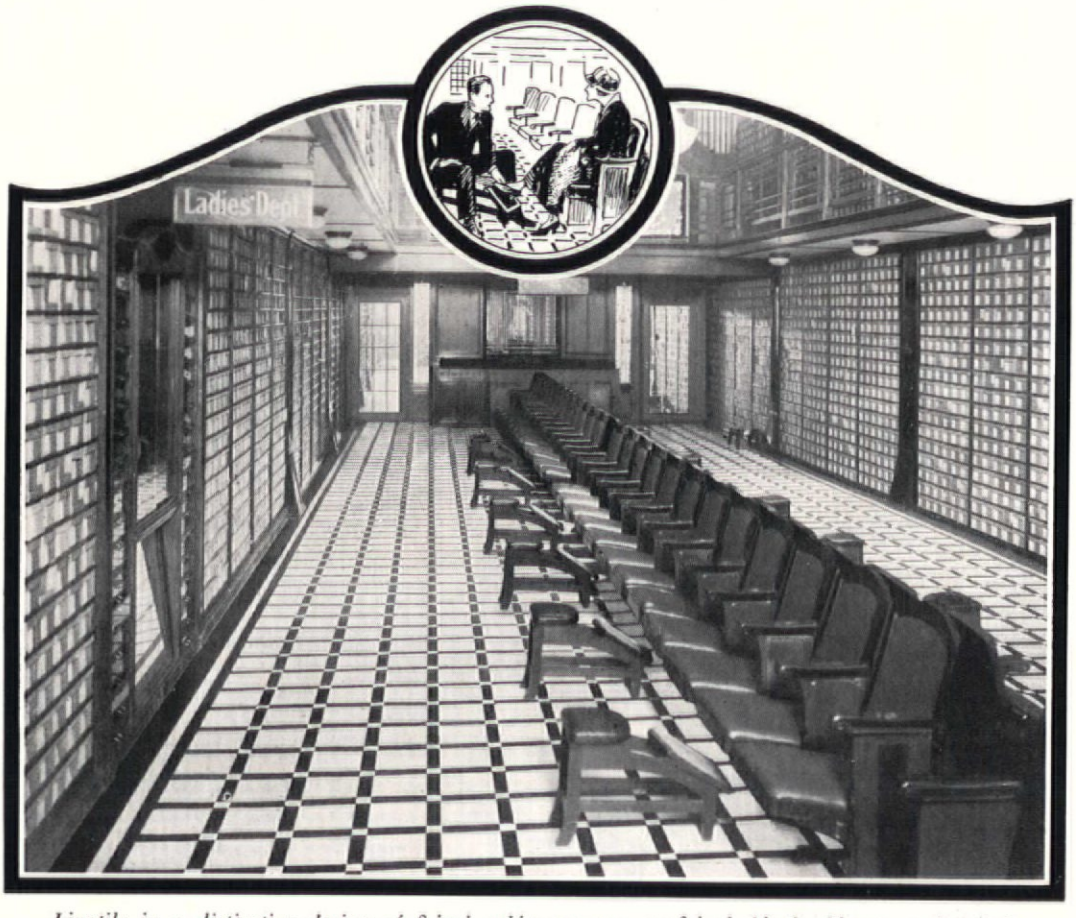
GENERAL CHEMICAL COMPANY, 40 Rector St., New York

Hard-n-tyte Sales Engineers are located in the following cities: Albany, Buffalo, New York City, N. Y.; Baltimore, Md.: Boston, Mass.; Chicago, Ill.; Cheyenne, Wyo.; Cincinnati, Cleveland, Ohio; Denver, Col.; Detroit, Mich.; Harrisburg, Philadelphia, Pittsburgh, Pa.; Indianapolis, Ind.; Kansas City, St. Louis, Mo.; Minneapolis, Minn.; Montreal, Toronto, Canada; Newark, Ridgewood, N. J.; New Orleans, La.; Omaha, Neb.; San Francisco, Cal.; Seattle, Wash.

Hard-n-tyte PRODUCTS for CONCRETE and MORTARS

Hard-n-tyte Engineering Service

SPECIALISTS IN HARDENING AND WATERPROOFING CONCRETE



Linotile in a distinctive design of 8-inch white squares, 2 x 8-inch black oblongs, and 2-inch white squares with a black and white border. 1400 square feet in the shoe store of Edward Friedman, 119th Street and Third Avenue, New York.

This Floor Sells Shoes

THIS smart-looking Linotile floor sells shoes because it first sells the customer the style of the shop and the good taste and good judgment of the proprietors. The natural reaction to such an attractive interior is that the stock, too, must be well chosen and up to date.

Linotile is a tile floor, but quite unlike the ordinary hard, cold, noisy tile except in appearance. For Linotile is a cork composition, warm and resilient—comfortable underfoot—nonslippery and almost noiseless.

And being nonabsorbent, it does not stain readily or take up or hold dirt. With proper cleaning (it needs no refinishing), a Linotile floor will retain its fresh, clean look through years of service.

Write today for sample tile and your copy of the descriptive booklet, "Linotile Floors."

ARMSTRONG CORK & INSULATION CO., 132 Twenty-fourth Street, Pittsburgh, Pa.

Also Manufacturers of Armstrong's Cork Tile

LINOTILE FLOORS

ASBESTONE

The Magnesia Flooring

First in Quality at a Medium Price.

Architects should properly classify ASBESTONE as the foremost medium-priced flooring for larger projects such as schools, office and apartment buildings, churches, and the like.

In texture, colors, and durability, it compares favorably with high-priced flooring. It is elastic, easy to be tread, and fire-proof —a thoroughly satisfying material of proved worth.

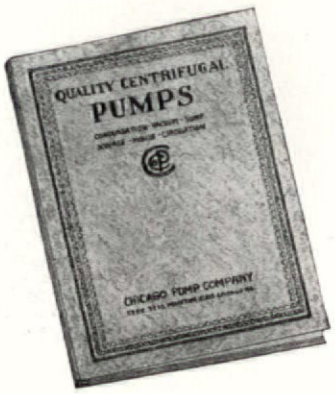
Installed by the manufacturers.

Estimates and samples furnished promptly upon application. Write us for further information.

FRANKLYN R. MULLER, Inc.
201 Madison Street, Waukegan, Ill.

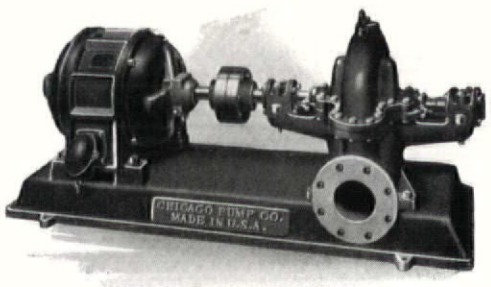
MULLER ASBESTONE GUARANTEED PRODUCTS TRADE MARK

THIS BOOK—



shows when to use—

—THIS PUMP



H. S. Pump, connected to motor.

—and completely describes all these pumping outfits.

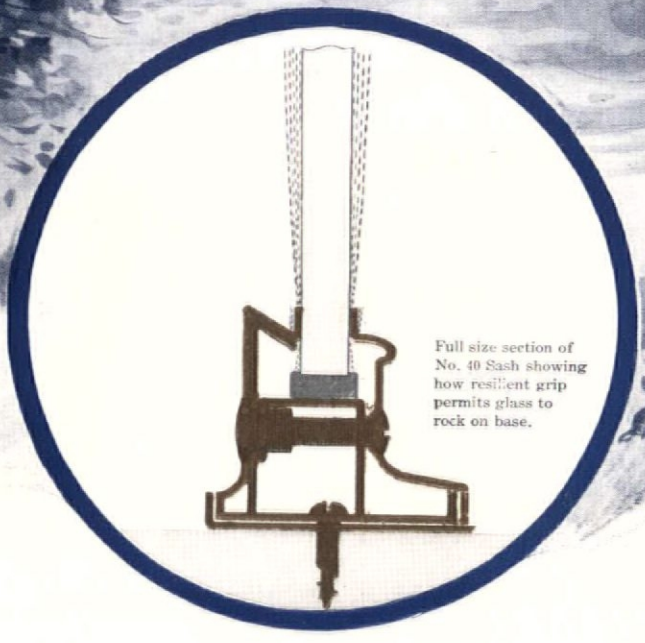
Boiler Feed
House Supply
Circulating
Pneumatic System

Bilge
Sewage
Condensation
Vacuum

Send for Your Copy.

CHICAGO PUMP CO.
2300 Wolfram Street Chicago, Illinois

Withstands Storm and Gale!



Full size section of No. 40 Sash showing how resilient grip permits glass to rock on base.



Kawneer
SOLID COPPER
STORE FRONTS

Plate Glass vibrates much like a tuning fork. It also bends under sudden wind pressure. The illustration shows how KAWNEER RESILIENT GRIP permits the plate glass to rock upon its base when vibrated or bent under wind pressure. Note how the spring shaped members hold the glass firmly yet provide the necessary resiliency.

Our new Catalog L and complete set of full sized details sent to architects upon request.

THE KAWNEER COMPANY

General Offices and Factory

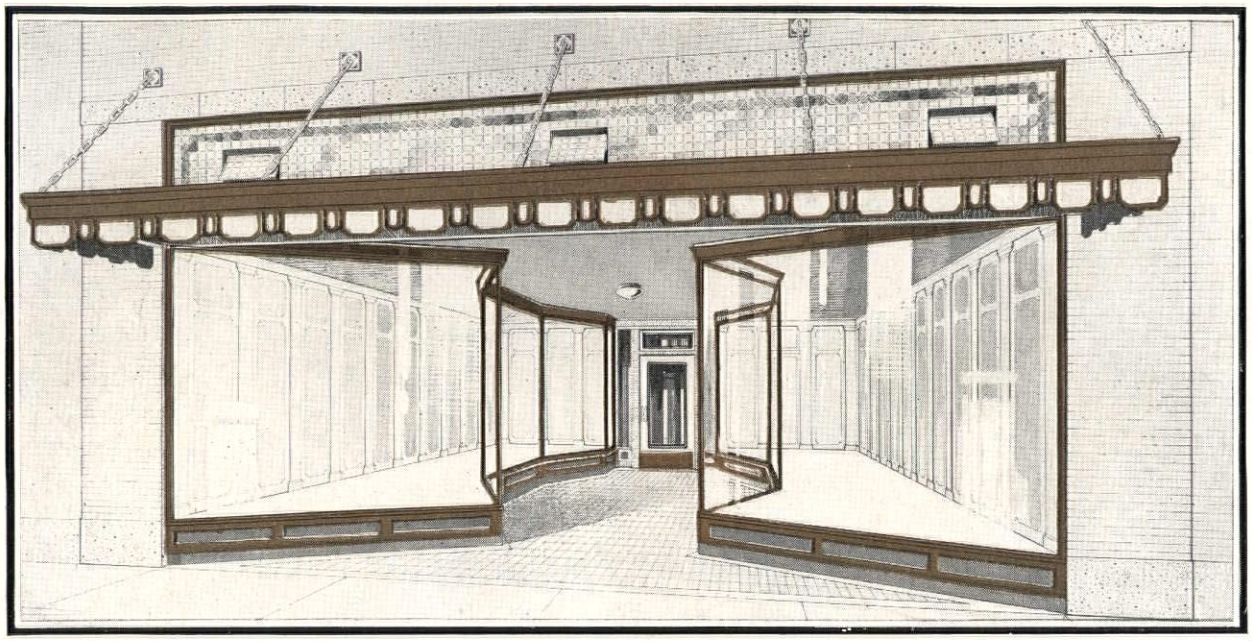
NILES, MICHIGAN

Or write nearest Kawneer Branch Sales Office

129 Peachtree Street, Atlanta
6 Beacon Street, Boston
111 West Washington Street, Chicago
615 Griswold Street, Detroit
903 Grand Avenue, Kansas City, Mo.
10 North Fourth Street, Philadelphia
233 Tenth Avenue, New York City

Also 61 Glass Jobbers in Larger Metropolitan Cities. On Pacific Coast write Kawneer Mfg. Co., Berkeley, Cal.

Kawneer
SOLID COPPER
STORE FRONTS

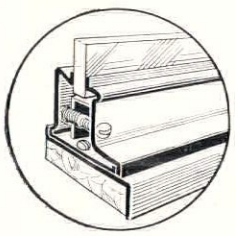


RESILIENCY IS A PATENTED FEATURE OF KAWNEER SOLID COPPER STORE FRONT CONSTRUCTION

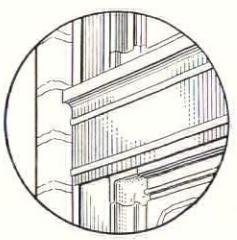
Plate glass set in Kawneer Resilient Store Front construction is held between two spring shaped members which provide the necessary give-and-take grip that will hold the glass firmly without danger of fracture from vibration. This basic and patented feature has been tested in many thousands of installations in most of the business streets of the nation. This is one of the reasons why Kawneer Construction has been recognized as standard ever since it pioneered the solid copper store front.

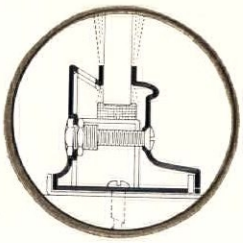
THE KAWNEER COMPANY
General Offices and Factory
NILES, MICHIGAN

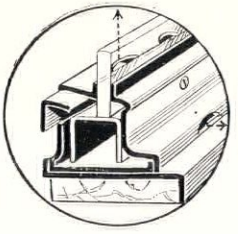
These Six Points Tell Kawneer's Story of Efficiency


PERMANENCY


RUGGED STRENGTH


BEAUTY OF DESIGN


RESILIENCY


VENTILATION


EASE OF INSTALLATION

(SEE OVER)



ARTISTIC distinction! That is the keynote of the Manhattan Shirt Company's New York salesrooms and offices, designed by Alfred Freeman, architect. The impressive architectural detail is admirably set off by the floor—installed by Bonded Floors Company—of brown *Gold-Seal* Battleship Linoleum, with contrasting borders of *Gold-Seal* Marbleized Rubber Tile.

As a factor in the decorative plan, Bonded Floors have a well-defined place. There is a type of Bonded Floor for almost any interior—each durable, comfortable and quiet.

When you choose a Bonded Floor you obtain the cooperation of specialists in the designing and installation of resilient floors. And, final advantage and safeguard, a Surety Bond, issued by the U. S. Fidelity and Guaranty Company, is a pledge of satisfactory service.

Perhaps our staff may be of service to you in the planning and installation of satisfactory floors.

BONDED FLOORS COMPANY, INC.

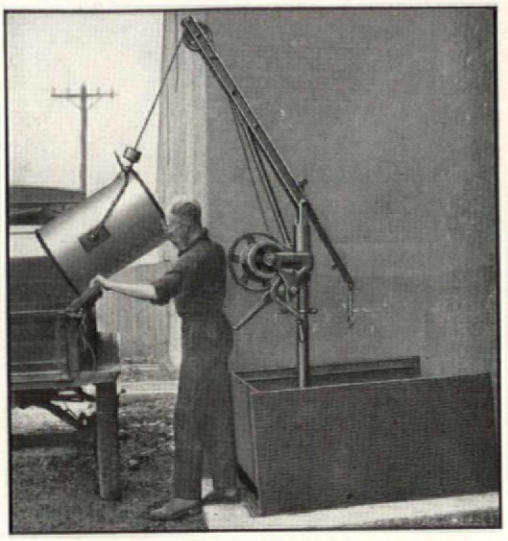
Division of Congoleum Company, Inc.

Manufacturers . Engineers . Contractors

Main Offices: 1421 Chestnut Street, Philadelphia, Pa.

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Model B Hoist in use at State Armory, Troy, N. Y.
Lewis F. Pilcher, Architect

No Rehandling Ashes
at grade level

FROM boiler room floor direct to top of ash truck—that's the way ashes are removed with a G&G Overhead Crane Hoist. It saves labor because cans are only handled **once**—and it saves time for the same reason.

It is this economical advantage that recommends the G&G Overhead Crane Hoist wherever grade approach permits truck to drive up alongside of hoistway.

For a considerable volume of ashes, an electrically operated Hoist (Model D) should be specified. When the volume of ashes to be removed is small, a manually operated Hoist (Model B) should be specified.

Do not overlook the *safety* features of these Hoists. Illustration shows how sidewalk opening is fully protected by G&G Doors and Spring Guard Gate.

These and other G&G models are described and illustrated in Sweet's Catalog, pages 2199-2207.

GILLIS & GEOGHEGAN
544 West Broadway New York

the
G&G
REG. U. S. PAT. OFF.
Telescopic Hoist
with Automatic Gear Shifting Brake Device and Silencer

OTIS

For more than a half century
The World's Word
for Elevator Safety

OTIS ELEVATOR COMPANY
Offices in all principal cities of the world

ES

Dumbwaiters

SCHRAFFT'S RESTAURANTS, illustrated in this number, are among the representative ES dumbwaiter installations.

Where there is a problem of conveying food and dishes from one floor or level to another, reliability in the equipment is more than a virtue—*it is a necessity.*

As with all ES devices, architects have found that for more than thirty years ES service, *after* as well as before installation, never falls below expectation.

Elevator Supplies Company, Inc.
Main Office and Works: HOBOKEN, N. J.
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CLEVELAND PHILADELPHIA ST. LOUIS DALLAS
SAN FRANCISCO CHICAGO LOS ANGELES



About one-third of Davey Organization in Convention at Kent

JOHN DAVEY

Father of Tree Surgery
Reg. U. S. Pat. Off.

A study in human values

In the photograph above you see about one-third of the organization of Davey Tree Surgeons—in annual convention at Kent, Ohio, March 3rd to 8th, 1924. Quality personal service depends not only on skill and training but on *character*. Study the faces of these men—would you not instinctively trust them? Would you not judge them to be men of real character? Read below the wonderful tributes to these master Tree Surgeons.

"So rare in these times"

Your men seemed to take unusual interest in the work—so rare in these times. You are to be congratulated on having so fine a corps of men—no doubt due to your efficient training.

H. M. Taylor, Brookline, Mass.

"Courteous and gentlemanly"

Your men were very courteous and gentlemanly and we feel that you are to be congratulated in having such a type of boys to send out to do the work for you.

W. H. Wing, Holland, Mich.

"Source of much satisfaction"

The young men engaged in the work were most courteous and considerate and it is a source of much satisfaction to do business with a company like yours.

G. E. Crawford, Board of Commissioners, City of Mobile, Ala.

"Clean, active young Americans"

In the foreman who did our work your company has a conscientious, hard working young man; self-reliant and of excellent judgment; one who has the best interests of both his company and patrons at heart. Those under him are clean, active young Americans—all interested in their work, a virtue rare in these days.

David Gardiner,
Sagtikos Manor Farm, Bay Shore, L. I.

"A great joy to me"

The skill and courtesy of your men was a great joy to me, and a marvel to those who had never seen this work done before. Again, as with the work done for me last year, I must say you have sent me most excellent workmen.

Mrs. Dorman Baldwin, Oneonta, N. Y.

"Greatest thoroughness and care"

Your representatives showed very thorough practical knowledge, and what they did was done with the greatest thoroughness and care. I cannot speak too highly of them.

G. B. Rives, Cobham, Virginia

Davey Tree Surgeons are local to you; they live and operate in your vicinity—any place between Boston and Kansas City. Write or wire nearest office.

THE DAVEY TREE EXPERT CO., Inc., 109 City Bank Bldg., Kent, Ohio

Branch offices with telephone connections: New York, Astor Trust Bldg., Fifth Ave. and 42nd St.; Albany, Volckert Bldg.; Boston, Massachusetts Trust Bldg.; Philadelphia, Land Title Bldg.; Baltimore, American Bldg.; Pittsburgh, 331 Fourth Ave.; Buffalo, 110 Franklin St.; Cleveland, Hippodrome Bldg.; Detroit, General Motors Bldg.; Cincinnati, Mercantile Library Bldg.; Louisville, Todd Bldg.; Indianapolis, Lombard Bldg.; Chicago, Westminster Bldg.; St. Louis, Arcade Bldg.; Kansas City, Scarritt Bldg.; San Francisco, Hobart Bldg.; Montreal, 252 Laugauchetiere, West.

DAVEY TREE SURGEONS

Every real Davey Tree Surgeon is in the employ of The Davey Tree Expert Co., Inc., and the public is cautioned against those falsely representing themselves. An agreement made with the Davey Company and not with an individual is certain evidence of genuineness. Protect yourself from impostors. If anyone solicits the care of your trees who is not directly in our employ, and claims to be a Davey man, write headquarters for his record. Save yourself from loss and your trees from harm

Why Brasco Leads









Above, Bandur Motor Sales Company
Koenigsberg & Weisfeld, Architects

At the left, two views of "The Orrington," Evanston, Ill.
J. A. Scanlan, Archt. and Struct. Engr.
Victor C. Carlson, Owner and Builder

Below, Somerset Hotel
S. N. Crowen, Architect
Paschen Bros., Builders

Brasco Store Fronts furnished and installed by Sharp, Partridge & Co., Chicago

THE thousands of Brasco installations in Chicago include all types of stores from the twenty-foot State Street store to buildings with a block of frontage. They range from the exclusive specialty store to chain drug and shoe stores, from the valuable downtown locations to the neighborhood shopping stores.

There are more Brasco Store Fronts being sold in Chicago than any other make. Why?

Leading architects, contractors and builders recognize that Brasco patented glass setting sash with its wide grip on the glass, obtained through

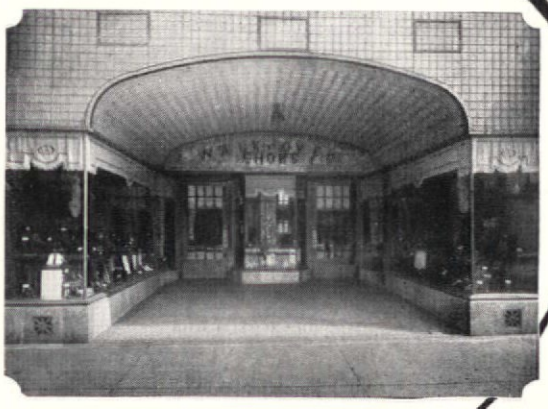
Brasco

In Chicago

At the right, Walk-Over Shoe Store
F. W. Fisher, Architect
Christ Hansen, Contractor

Below, Emerman Building
Fugard & Knapp, Architects
Hugo Emerman, Owner and Builder





8 Brasco Features

the indirect method of fastening, insures absolute safety. Vibration, shocks and deflection from wind pressure are absorbed in this construction.

Brasco corner, division and reverse bars are steel reinforced for strength and safety. They make Brasco sash distinctive in appearance because only copper is visible.

The safety to glass, the individuality, the exclusive ventilation and drainage features and its adaptability to any kind of building or store front, make Brasco the best possible setting for attractive window displays.

Catalog, detail sheets and an actual sample of Brasco sash, which will gladly be sent to any architect, will show the many features that make Brasco preferred in Chicago as in so many other parts of the country.

BRASCO MANUFACTURING COMPANY
5031 S. Wabash Avenue - - - Chicago, Ill.

SIMPLICITY OF DESIGN. A prime factor from the standpoint of appearance and ease of installing the store front.

INDIRECT SCREW PRESSURE. No screw points directly toward glass and there is no chance of plate settling down on any screw.

STRENGTH. All corner, division and reverse bars are reinforced by continuous steel members.

SAFETY. Extra wide grip on glass, employing the approved firm, supple and uniform hold—safest for glass.

ARCHITECTURAL BEAUTY. Obtained through use of copper and uniquely designed mouldings.

IMPROVED DRAINAGE AND VENTILATION. Widest and most practical drainage gutter. Best ventilation.

COST. Most economical to install, using standard size lumber and requiring less wood.

PERMANENCY. Built to last, insuring great saving in ultimate cost. As near everlasting as modern science makes possible.

COPPER Store Fronts



Certified by popular usage-

The far-seeing business man whose good judgment prompts him to specify a Zouri Key Set Safety Metal Store Front does so in the knowledge that it will do for him just what it has done for many others. He knows that a Zouri window is as distinctively good as a certified check. He knows that both quality and service are there in full measure.

A Zouri Store Front lends distinction to any store. It is typical of high quality. It is noticed by passersby because it is *different*—and it makes a very proper setting for the finest display. Users say there is no better window than a Zouri.

Set off your display wares with a Zouri Store Front, listed, because of its proved quality, with the Underwriters Laboratories. You will need no better check-up on its merits.

Include this paragraph in glazing specifications for safer plate glass fronts—"All metal sash, Corner Bars and Self-Adjusting Setting Blocks used in Store Fronts must be listed by the Underwriters' Laboratories."

Zouri

SAFETY METAL STORE FRONTS

prevent glass breakage during installation or from distortion after the glass is installed.

Murnane Self-Adjusting Setting Blocks **bring** the glass into firm and even contact with the full face of the rigid rabbet. Zouri Key-Set construction **holds** it there.

In Zouri sash the glass is held in place by indirect screw pressure—more certain and perfectly safe.

There's a distributor near you who will give you full details without obligation. Ask us for his name.

We will be glad to mail you complete illustrated particulars and any specific information you may desire, at your request.

Zouri Drawn Metals Company

Factory and General Offices

1608 EAST END AVENUE, CHICAGO HEIGHTS, ILLINOIS



Residence of G. Leonard Johnson
Englewood, N. J.

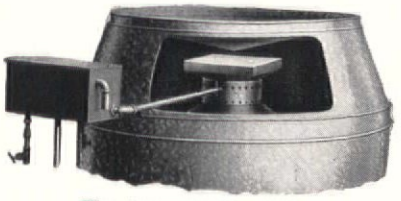
Aymar Embury II, Architect
New York

June Weather All Winter With a Kelsey

The man who builds a home in the country is actuated by a love of the great outdoors, of sunshine and fresh air.

And in many cases, the architect tells him how he can reproduce summer conditions in his home even during the coldest days of winter.

His heating system can bring in the fresh air from outdoors, heat it to a comfortable degree, supply just the right amount of moisture, and send the warm air circulating through all the rooms in the house in a volume and at a velocity which makes perfect circulation a certainty. At the same time the stale air may be drawn off at the floor line, making way constantly for the fresh supply.



The Automatic Humidifier

The Kelsey Warm Air Generator does all of this more efficiently than any other warm air heating system at a remarkably low fuel cost. It is endorsed by the leading architects, and used by many of them for heating their own homes.

Our Engineering Department furnishes detailed plans and specifications insuring satisfactory installation.

Let us send you "Kelsey Achievements," or any other heating information you desire.

Sales Offices
Boston and New York

THE KELSEY
WARM AIR GENERATOR
Trade Mark Reg. U. S. Pat. Off.
251 James Street, Syracuse, N. Y.

Dealers
Principal Cities

KELSEY
HEALTH
HEAT

A Complete Heating which occupies no more

The Model "S" Univent occupies no more space than a three column radiator, if the latter is properly set.

Years of thought and mechanical effort were necessary to build a small compact ventilating machine which would:

—give perfect diffusion of air with adequate air motion, without drafts.

—operate at full capacity as quietly as a watch.

—use a minimum amount of electrical current.

—warm the maximum quantity of air from zero to 110 degrees.

—be absolutely sanitary. Easily cleaned.

—be substantially and durably built, to last as long as the building.

The new Univent Model has all the above qualities and more.

It is no higher than the sill of the average school window—does not cut off any light.

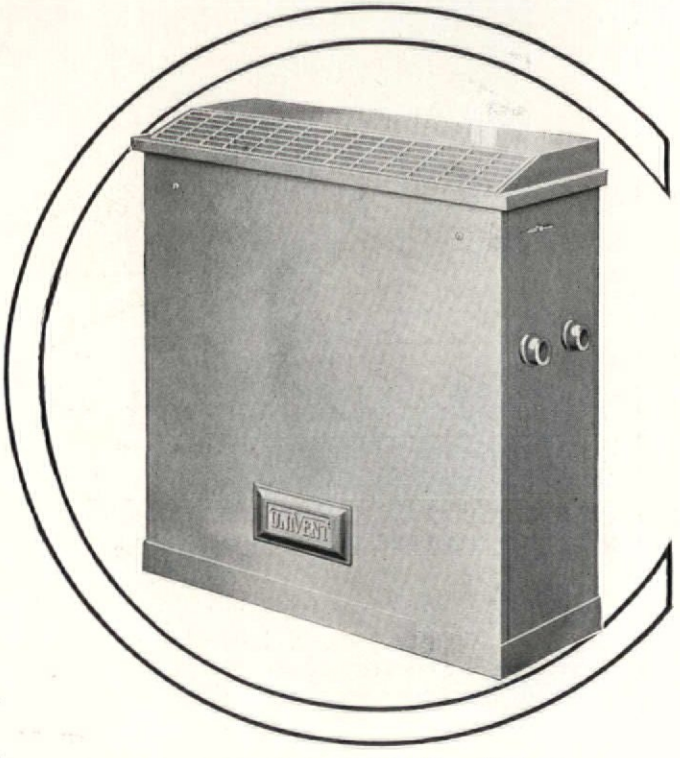
It does not extend more than 12½ inches from the wall.

When placed in a four-inch recess, it extends no more than 8½ inches from the wall.

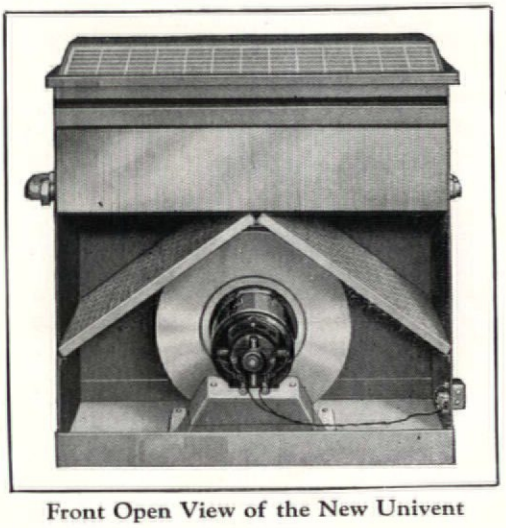
It is built in many sizes, but the largest one will deliver 81,000 cubic feet of fresh outside air per hour, heated from twenty-five degrees below zero to seventy degrees above.

Its low temperature, high capacity radiator will not scorch or burn the air. The *freshness* of the outside air is retained.

With the Univent radiator construction, the average temperature of the surface is kept comparatively low—even lower than the average hot water radiator. The mean temperature does not exceed 135



Front Closed View of the New Univent



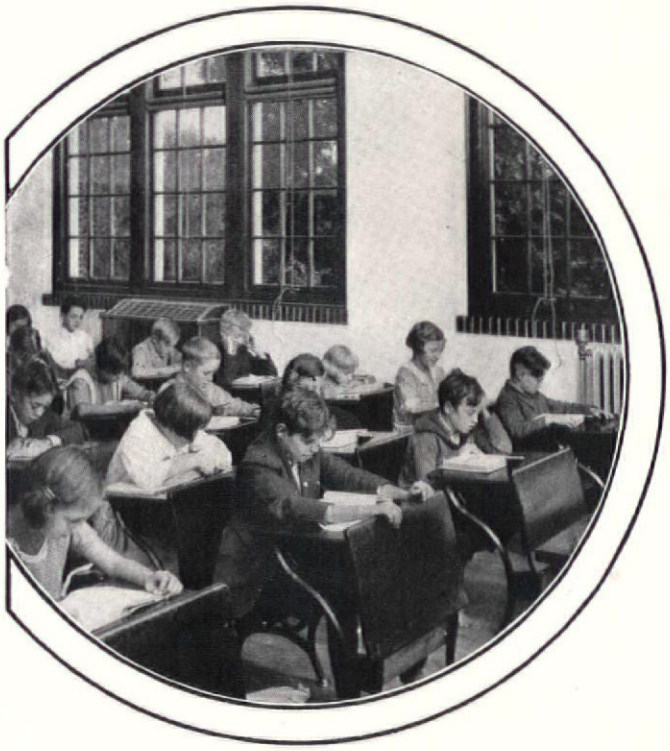
Front Open View of the New Univent

UNIVENT (TRADE MARK)

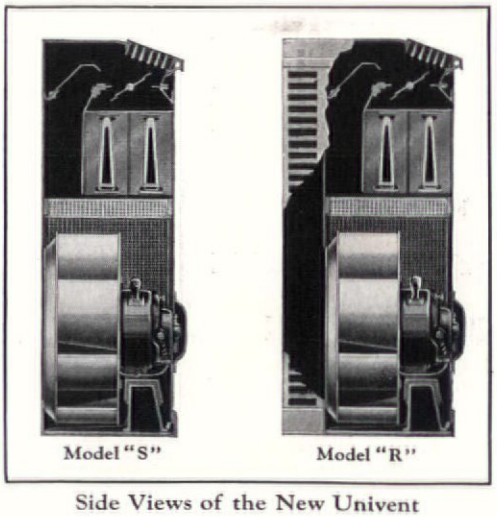
Manufactured only by

THE HERMAN NELSON CORPORATION

and Ventilating Plant space than a radiator



Make School Days Happier with the Univent



Side Views of the New Univent

degrees when the Univent is in operation as compared to 210 to 220 degrees with the ordinary steam radiator. This is accomplished by the fact that a very large amount of so-called indirect surface is used.

This radiator is constructed with a hollow streamline core section cast of aluminum and copper mixture and of the same thickness as the ordinary cast iron radiator.

Copper plates extending laterally from this core are pressed to the core by a special process to form a perfectly tight contact.

The heat from the steam in the core passes through the extended plates by conduction.

The Univent takes the fresh air through the wall. It is unnecessary to cut or alter the windows.

It has a filter for taking out the dust, dirt, soot or sand when schools are located where the atmosphere is loaded with these particles. The filter is of the adhesive impingement type.

The cleaning of this filter is a simple matter requiring only a few minutes time to replace the dirt-laden steel wool blankets with clean ones.

Dirt-laden blankets can be washed in three or four minutes time and are ready for replacement.

The building of a small, compact, high capacity Univent has been made possible by the use of the specially constructed copper radiator and partially recessing the motor in the fan; distinct Univent features.

Send for Catalog

The catalog gives a complete description of the new Univent. It contains many illustrations to show how it operates.

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1942 Third Avenue, Moline, Ill.

Gentlemen: Please send me without obligation, the catalog of the new Univent.

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The Johnson Thermostat on the wall of the home is as significant of genuine genteelness today as the oil painting on the wall. The resident qualities which it expresses, and the residence qualifications which it denotes are commendable indexes: while the health, comfort, convenience and extreme fuel economy which The Johnson Pneumatic System of Temperature Regulation so successfully contributes make it indispensible in homes that are to be considered strictly first-class, most modernly complete and of faultless construction.

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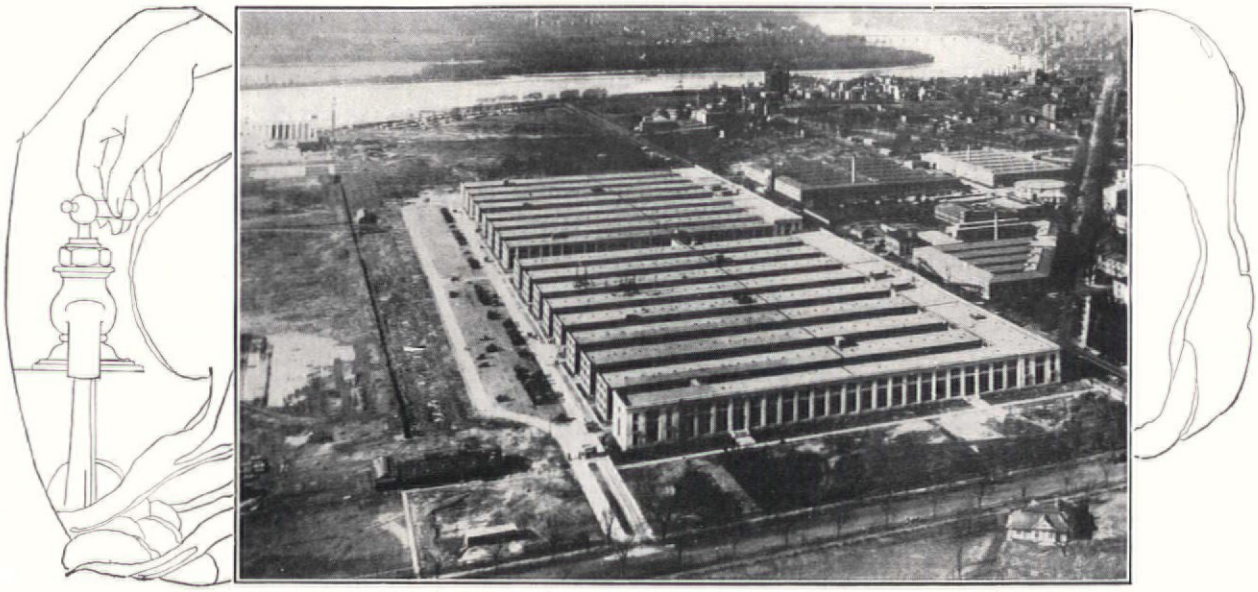
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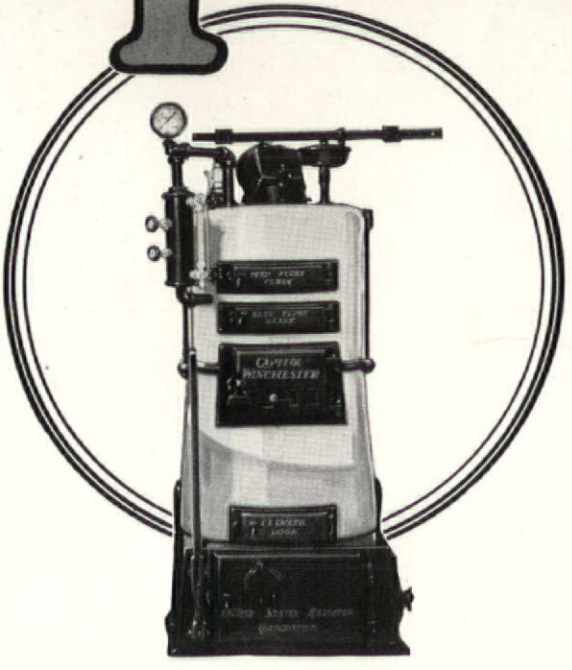
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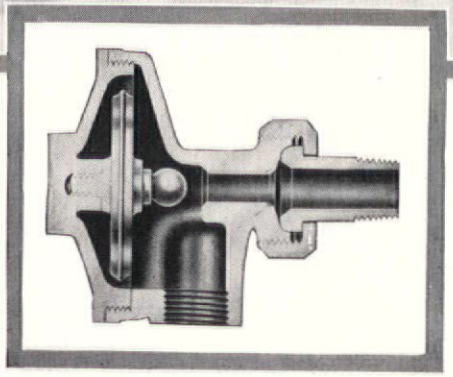
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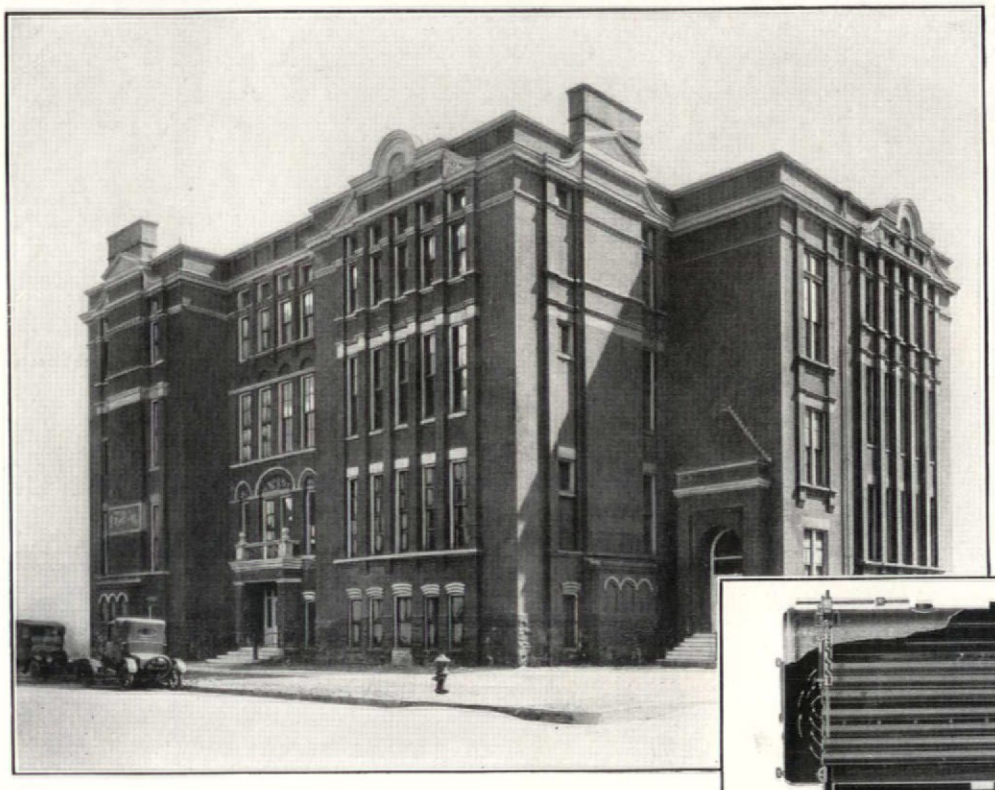
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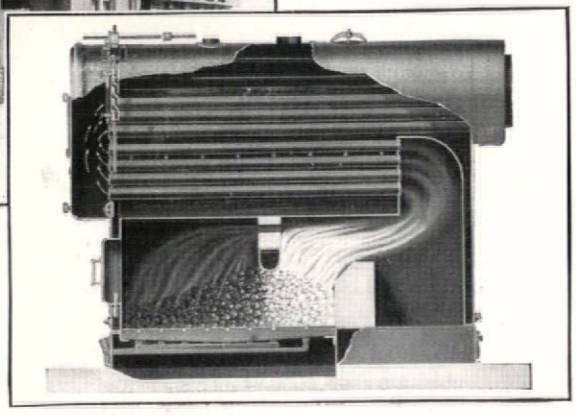
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Hoyne School, Cass and Illinois Sts., Chicago. Heated by one No. 26 Simplex Smokeless Steel Boiler. Architect, Chicago Board of Education. Heating and Ventilating Contractor, William A. Pope, Chicago.



Notice how construction of fire-box and smoke-burning arch force all gas and soot to ignite before entering combustion chamber. Economy is also gained through return tubular construction which greatly increases flue travel while floor space is saved.

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Simplex Boilers have a reputation of keeping chimneys cool and clean. They burn any fuel —smokelessly—with saving of 25% to 40%.

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The new IDEAL Arco Round Boiler

The universal boiler for all fuels

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In most of the installations of heating equipment with which you are concerned, boilers of larger types, usually IDEAL Boilers, we hope, are the ones you specify. However, when you have occasion to specify boilers of the class of ARCO Round, probably in advising in the case of group building, sometimes in individual buildings, we hope that you will investigate the new ARCO Round Boiler.

We have retained those features of the boiler which have been proved in service to be most efficient, features that have made the boiler distinctive in its field, and have added several new ones developed through experimentation and test.

Among other new improvements is the enlarged fire-pot, which, together with larger, direct, fire-contact heating surfaces, gives an increased heat-generating capacity.

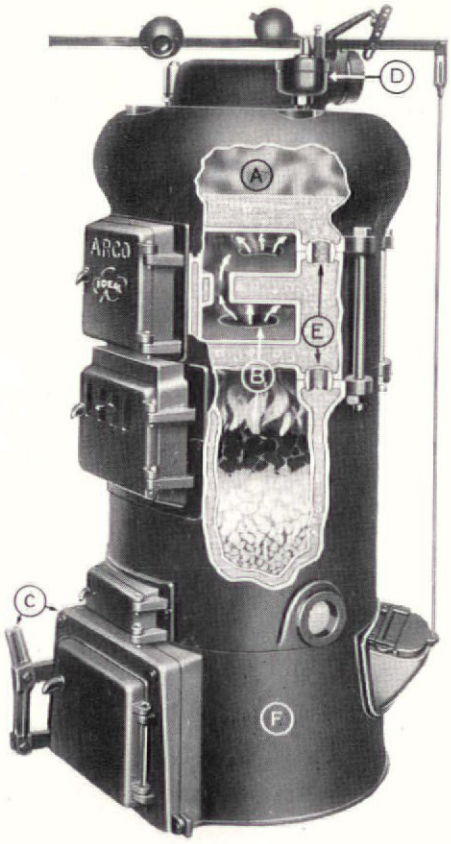
In the sectional view of the boiler, below, are shown some of the special features, old and new, which contribute to make the ARCO Round standard in its field.

If you have not received the descriptive catalogue sent you, or if you desire additional copies for your clients, please send to our nearest branch office or to the address below. The book gives full details of construction, ratings and dimensions.

(A) Unusually large steam dome insures free and rapid steam generation and dry steam at outlet.

(B) Fuel capacity and fire-contact heating surface greatly increased, giving increased heat-generating capacity.

(C) Substantial character of shaking mechanism and all plate work insures ease of attention.



(D) Improved 1924 Metallic Bellows Regulator sets a new standard of excellence in sensitive and dependable regulation. Draft control is placed in rear.

(E) Improved Nipple Construction, insuring rapid water circulation and quick dry steam generation.

(F) Base is extra large and substantial. Grates are specially trussed and their teeth carefully spaced, insuring dependable, life-long service.

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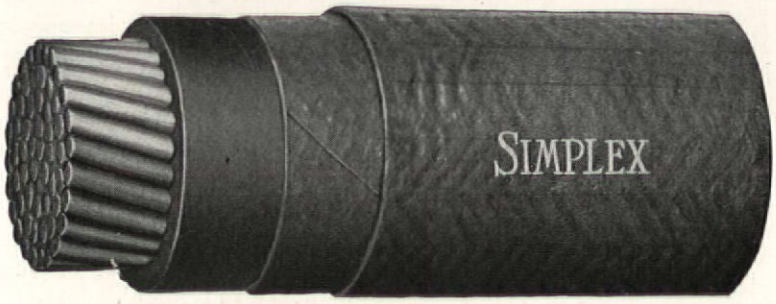
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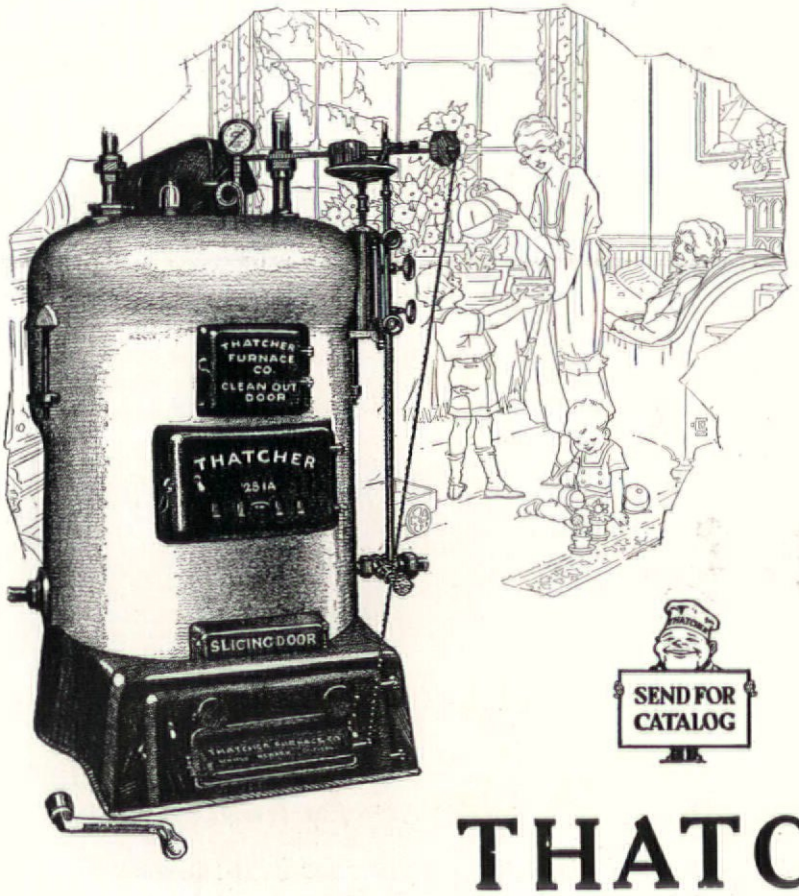
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Every Room a *Warm* Room

—and small coal bills, too. The architect who specifies a Thatcher Round Boiler (Steam or Hot Water) knows it will keep the house at a comfortable and consistent temperature.

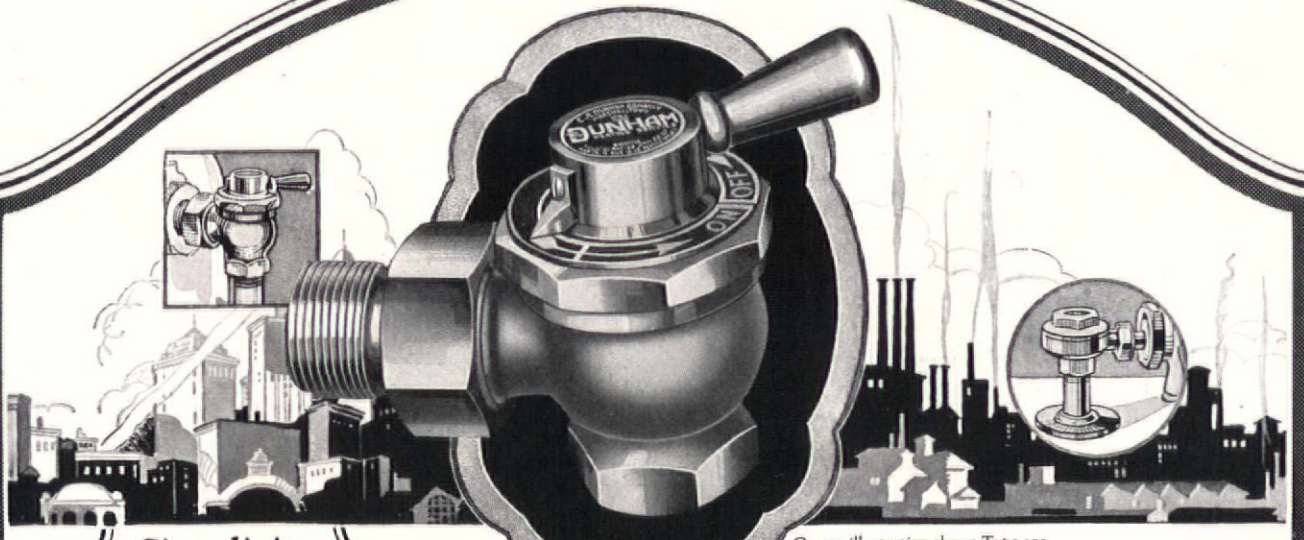
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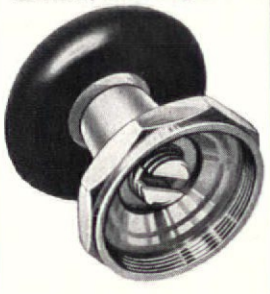
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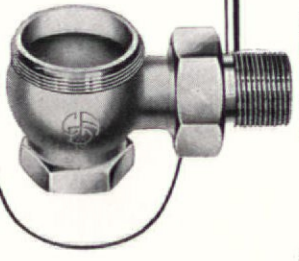
Center illustration shows Type 100 Dunham Packless Radiator Valve.

Simplicity

THE illustrations below show the remarkable simplicity of this valve, made in both lever handle (Type 100) and wheel handle (Type 140) styles. There are only three parts to the valve and each of these is sturdy. They are of proper design, and absolutely interchangeable.







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After years of service Dunham Valves still are functioning without trouble or expense in thousands upon thousands of installations. They are the ultimate in service as well as in valve design and construction.

C. A. DUNHAM CO.

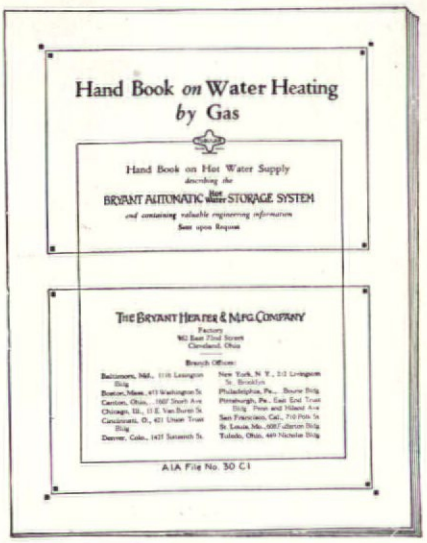
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And Here is the BRYANT Handbook on Water Heating By Gas



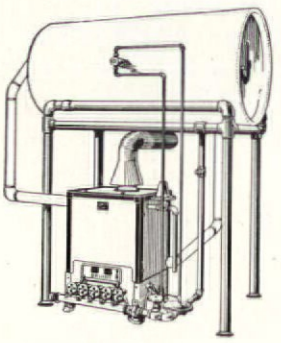
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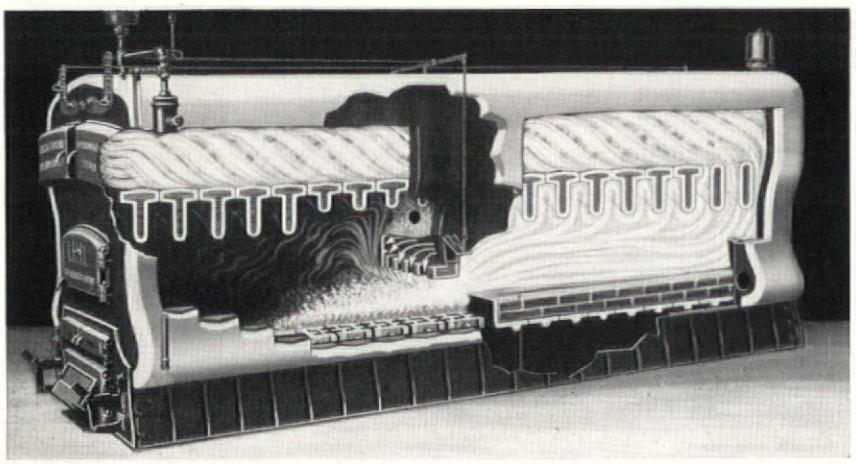


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Fig. 106, screwed, Standard Bronze Globe Valve, fitted with Jenkins Renewable Disc

Sectional view Fig. 370, screwed. Standard Bronze Gate Valve. Note thorough, even distribution of metal throughout.

Fig. 141, screwed, Standard Iron Body Globe Valve.

Fig. 352, screwed, Standard Bronze Swing Check Valve.



Fig. 715, Bronze Fire Line Valve—neither sticks nor corrodes.



Fig. 169-G, screwed, Standard Bronze Globe Valve with Lock shield.



Fig. 720, Bronze Rapid Action Valve for instantaneous flow—stays open automatically.



Fig. 325, screwed, Standard Iron Body Gate Valve.

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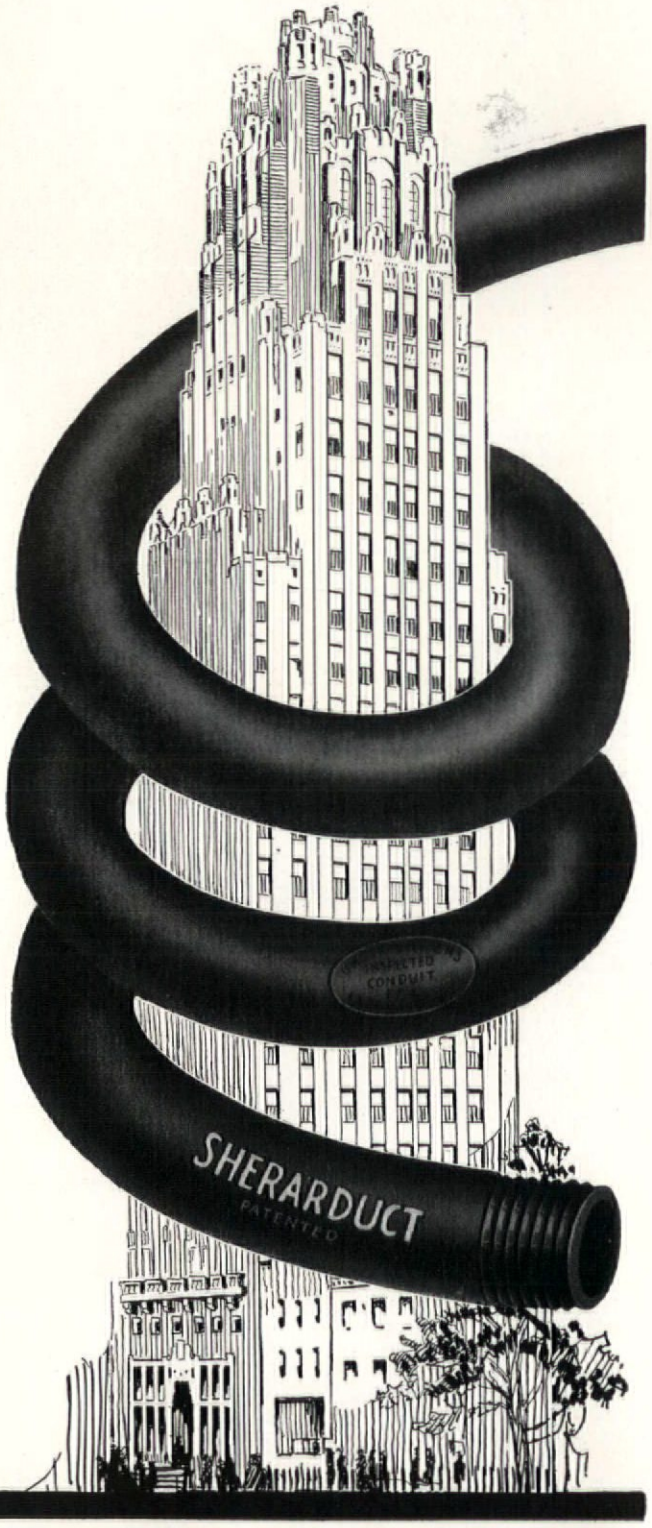
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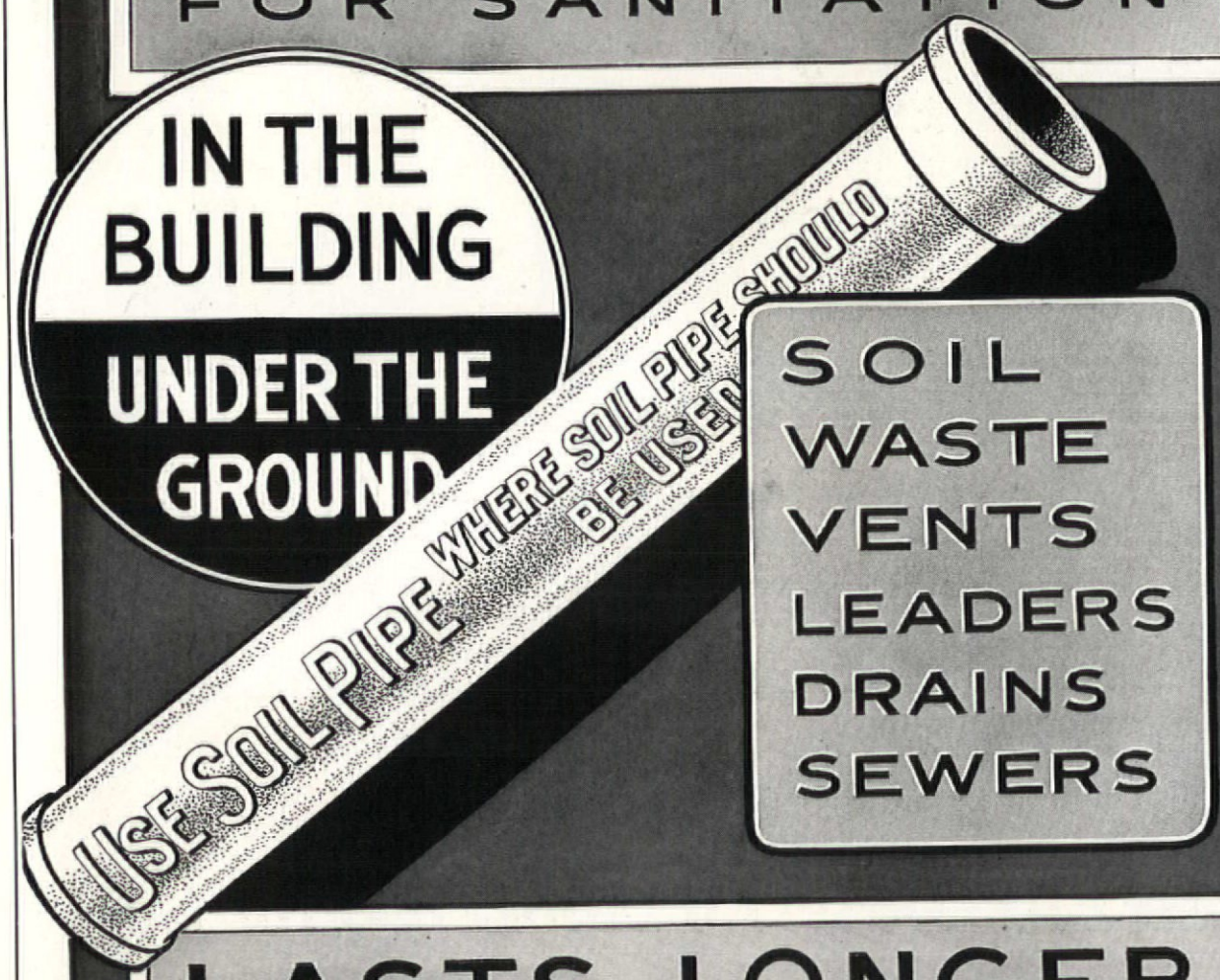
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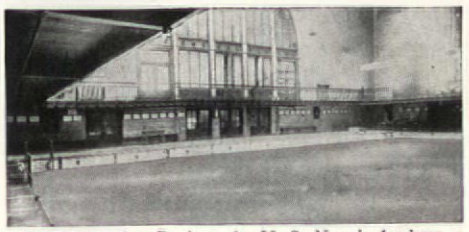
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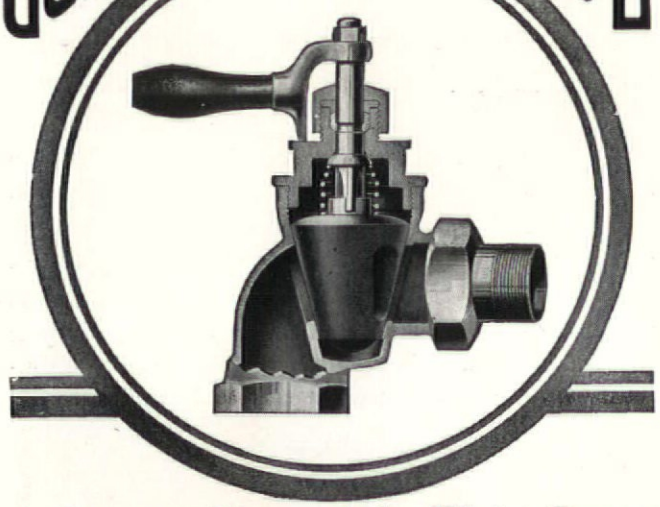
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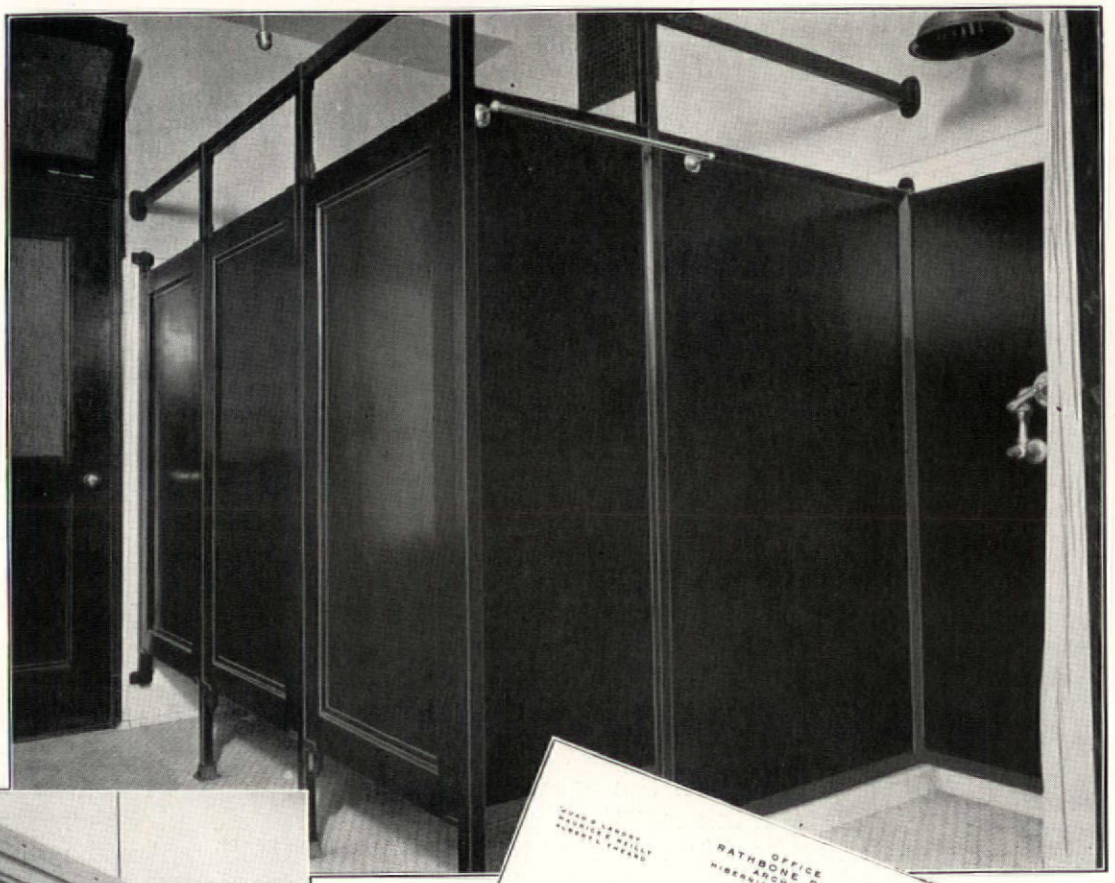
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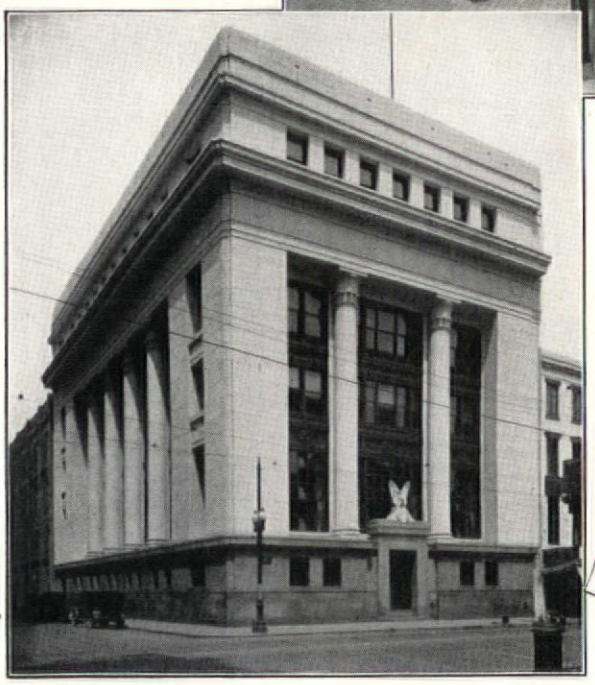
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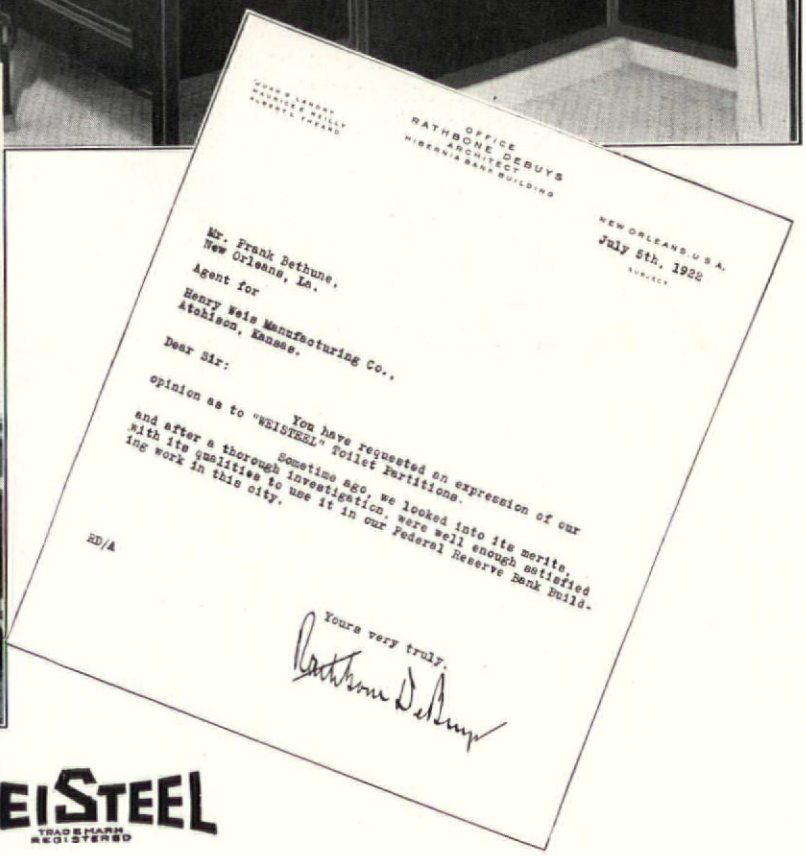
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Rathbone DeBuys,
Architect
New Orleans, La.





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July 5th, 1922

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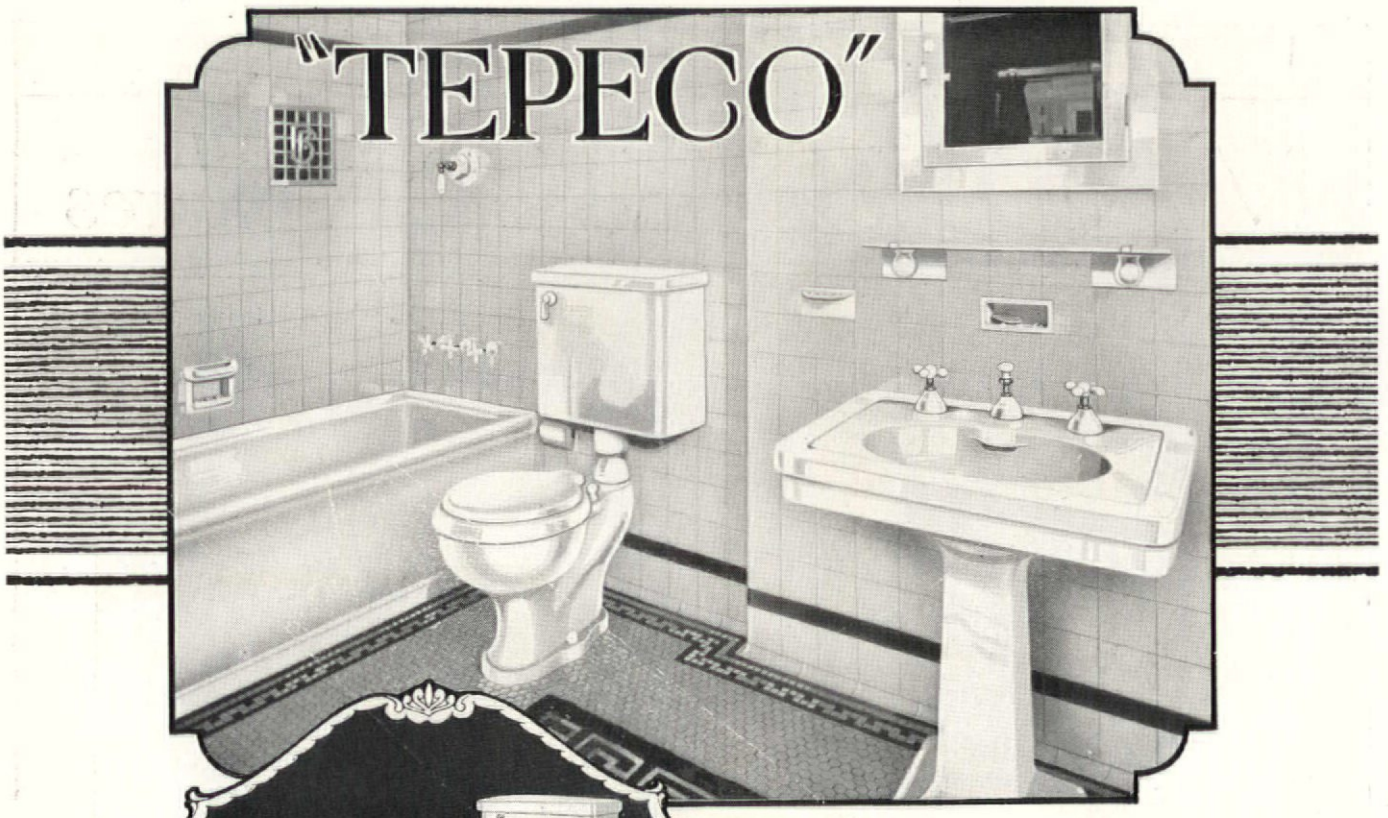
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Your jobber can furnish these combinations if you insist. You *should* insist because it is to your advantage to do so.

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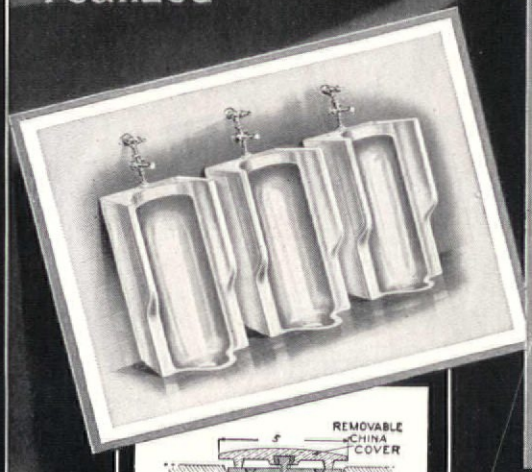
TEPECO Water Closets
FOR EVERY PLACE AND PURSE

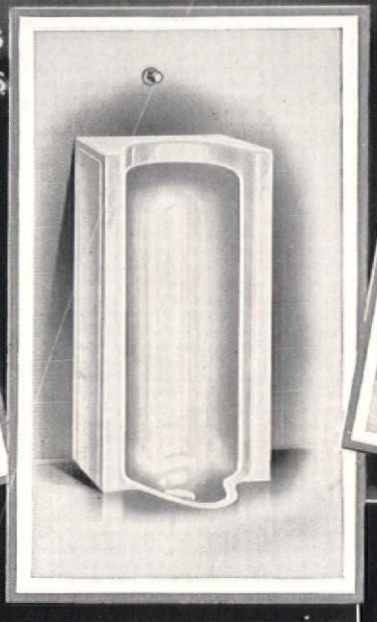
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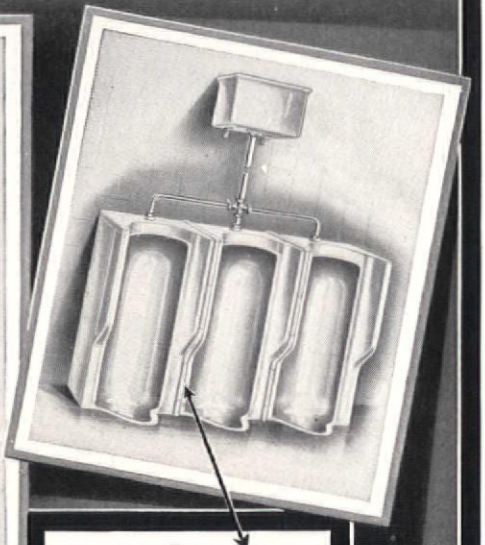
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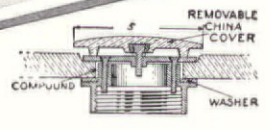
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The wish of Architects and Sanitary Engineers realized









The China Cover on outlet gives an entire white appearance on the inside of Urinal

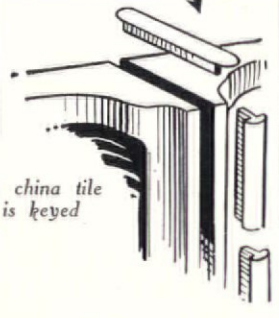


Illustration shows the china tile seam cover which is keyed in cement

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For a great many years there has been a demand among the Architects and Sanitary Engineers for a material that is absolutely impervious for the manufacture of Stall Urinals. Many materials have been tried and found unsatisfactory for various reasons.

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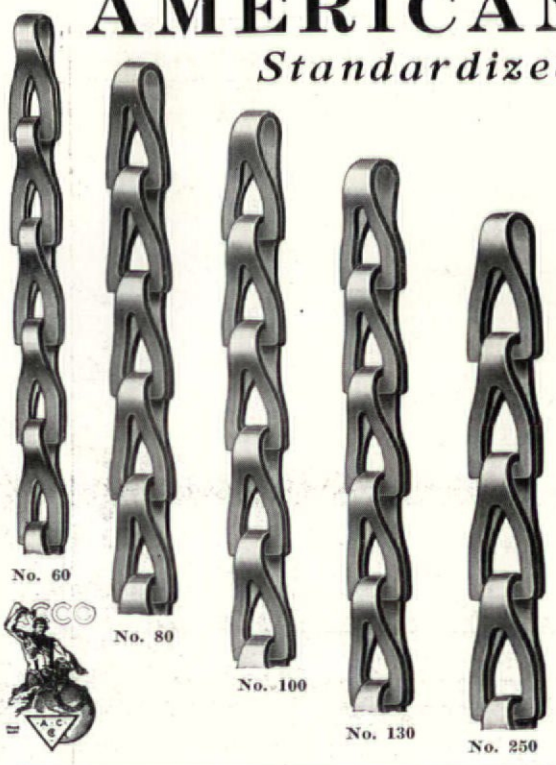
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BATCHELDER TILES



A Mantel of Special Design

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a gentleman's game

Garden Court Apartments
Los Angeles, Calif.

J. E. Ransford, *Owner*
Frank Meline, *Architect and Builder*

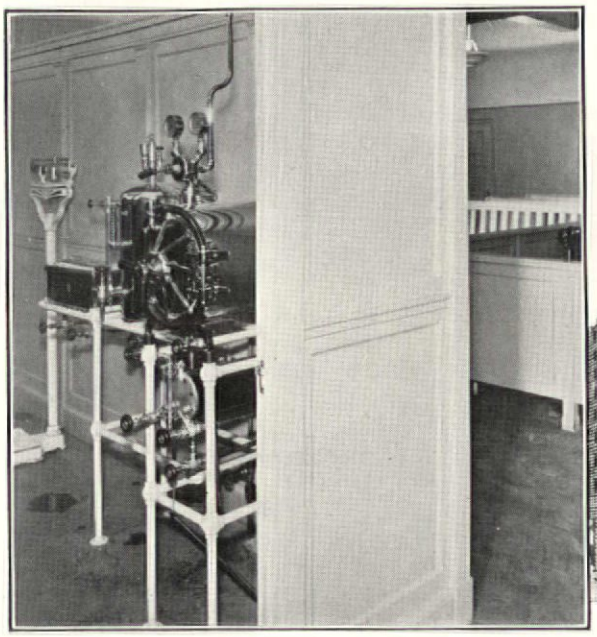
Billiard room equipment consisting of mahogany Chateau Carom and Chateau Pocket tables furnished by Brunswick.

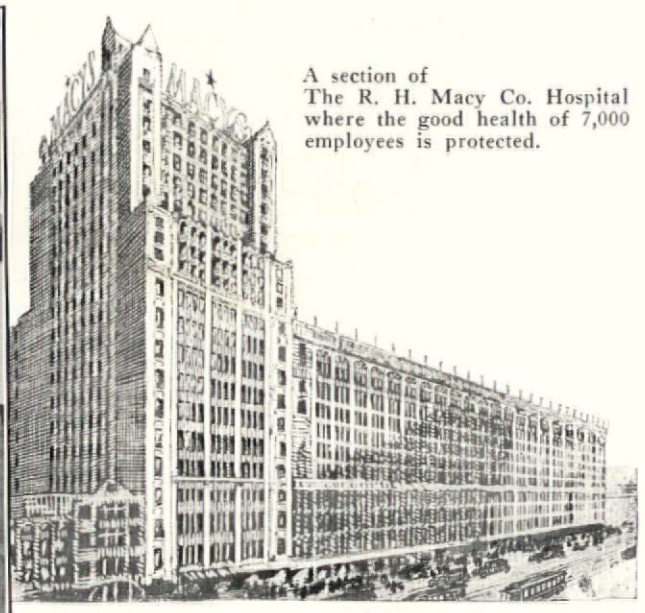
BUILDERS and owners of apartment houses, hotels and similar buildings are realizing more and more the importance of providing facilities for under-the-same-roof entertainment for tenants. They have learned that facilities for such recreations as billiards and bowling pay not only in making the property more attractive to tenants, but in actual dollars-and-cents return in rentals.

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Branch houses in the principal cities in the United States and Canada
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Inspires Confidence

CARE of employees by the modern department store is considered equal in importance with service to the public. Good health means a good disposition, and this is essential in all sales people. Time lost from incidental ailments makes expensive inroads on the sales sheets.

To keep employees at their work and keep them healthy and contented, the progressive department stores maintain well-equipped emergency hospitals. Small injuries are quickly cared for, a minimum of time is lost and service to the public is maintained. In addition, such hospitals are an added security for the health and comfort of the shopping public.

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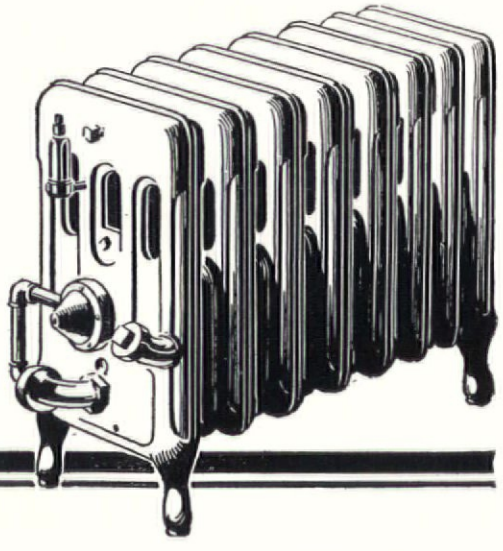
Send for complete descriptive material on Clow Gasteam for your files.

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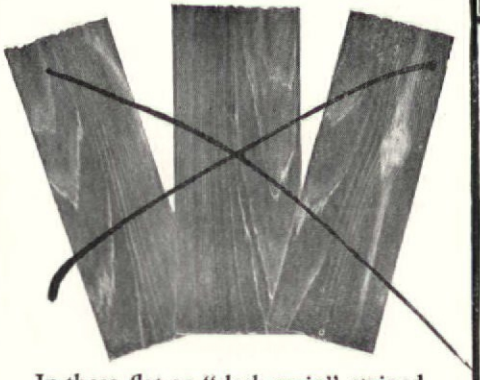
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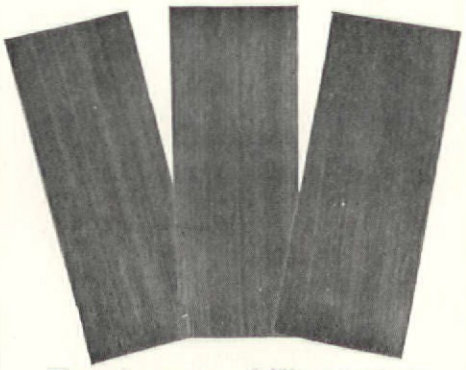


24-inch WEATHERBEST Colonial White Stained Shingles for sidewalls and 16-inch WEATHERBEST Moss Green on the roof, carry out the Colonial effect in this handsome home designed and owned by Marvin Olcott, Big Flats, N.Y.

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In these flat or "slash-grain" stained shingles, the hard, flint-like surface of the flat grain cannot absorb and hold stain.



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"Edge-grain" means "durable stain"

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Lapidolith is a liquid chemical that penetrates the concrete when brushed over the surface. It hydrates the free lime, forming a crystalline surface that is as hard as flint. This surface resists the hardest kind of service for years.

A floor treated with Lapidolith is dustproof, wearproof, waterproof. With such a floor, repair cost is something to be forgotten for years to come. There are floor hardeners that cost a little less per gallon than Lapidolith —but none that will turn out a floor that will do you as much credit.

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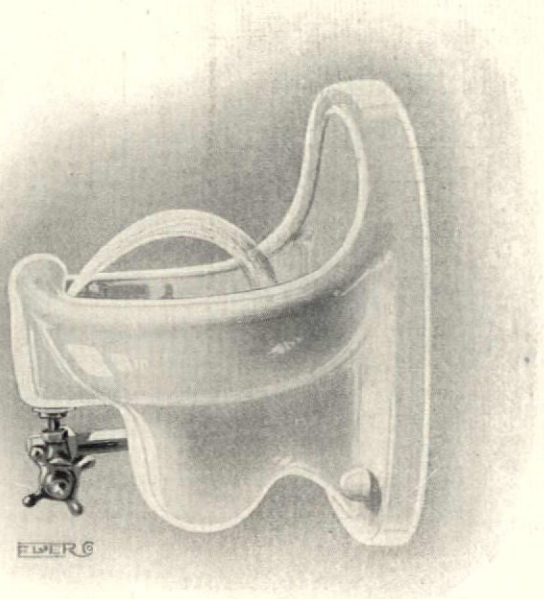
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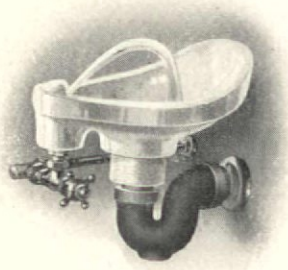


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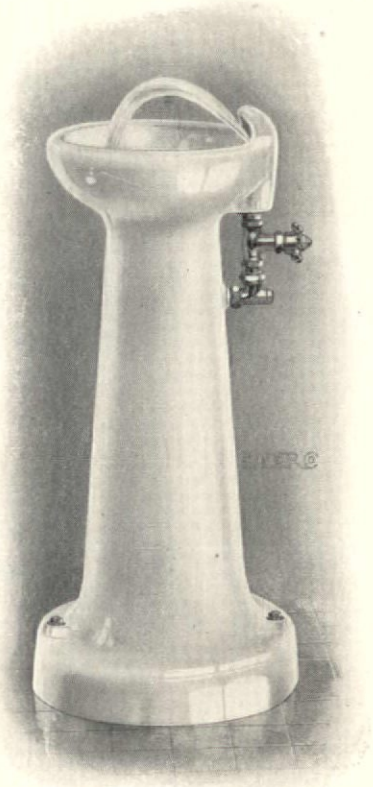
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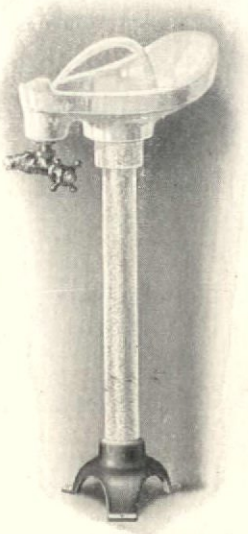
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